DOCUMENT RESUME

ED 246 248 CE 039 289

AUTHOR	Barker, Ellen; And Others
TITLE	Food Production Worker. Dietetic Support Personnel Training Program.
INSTITUTION	Oklahoma State Board of Vocational and Technical Education, Stillwater. Curriculum and Instructional Materials Center.; Oklahoma State Dept. of Vocational and Technical Education, Stillwater. Div. of Business/Industrial Training Services.
PUB DATE	83
NOTE	714p.; For related documents, see ED 232 032 and CE 039 290.
AVAILABLE FROM	Curriculum and Instructional Materials Center, Oklahoma State Board of Vocational and Technical Education, 1500 West Seventh Avenue, Stillwater, OK 74074 (Order No. AD1124--$22.50).
PUB TYPE	Guides - Classroom Use - Guides (For Teachers) (052)
EDRS PRICE	MF04 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Behavioral Objectives; Classroom Techniques; Competency Based Education; Cooking Instruction; Core Curriculum; Criterion Referenced Tests; *Dietetics; *Dietitians; Educational Strategies; Equipment Maintenance; Equipment Utilization; Food; *Food Service; *Foods Instruction; Food Standards; Guidelines; Instructional Materials; Job Skills; Job Training; Learning Activities; *Nutrition; *Occupational Home Economics; Postsecondary Education; Safety; Sanitation; Secondary Education; State Curriculum Guides; Supervisory Methods; Teaching Methods
IDENTIFIERS	*Food Production; Oklahoma

ABSTRACT

This curriculum guide, part of a multi-volume dietetic support personnel training program, consists of materials (15 units) for use in training future food production workers. Covered in the first part of the guide are nutrition in food production and diet therapy. The second part of the guide deals with sanitation and safety in food production. Addressed in the next section are the following aspects of food production: menu planning, purchasing, receiving and storage; food preparation equipment; standardized recipes; protein cookery; preparation of cereals, breads, and desserts; preparation of fruits and vegetables; preparation of sandwiches and soups; the use of seasonings; production scheduling and food service; and cost control in food production. Concluding the guide is a unit on basic supervisory skills. Each instructional unit contains some or all of the following: performance objectives, suggested activities, information sheets, transparency masters, class and clinical assignment sheets, job sheets, tests, and answers to the test and assignment sheets. (MN)

ED246248

CE039289

015821330S

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

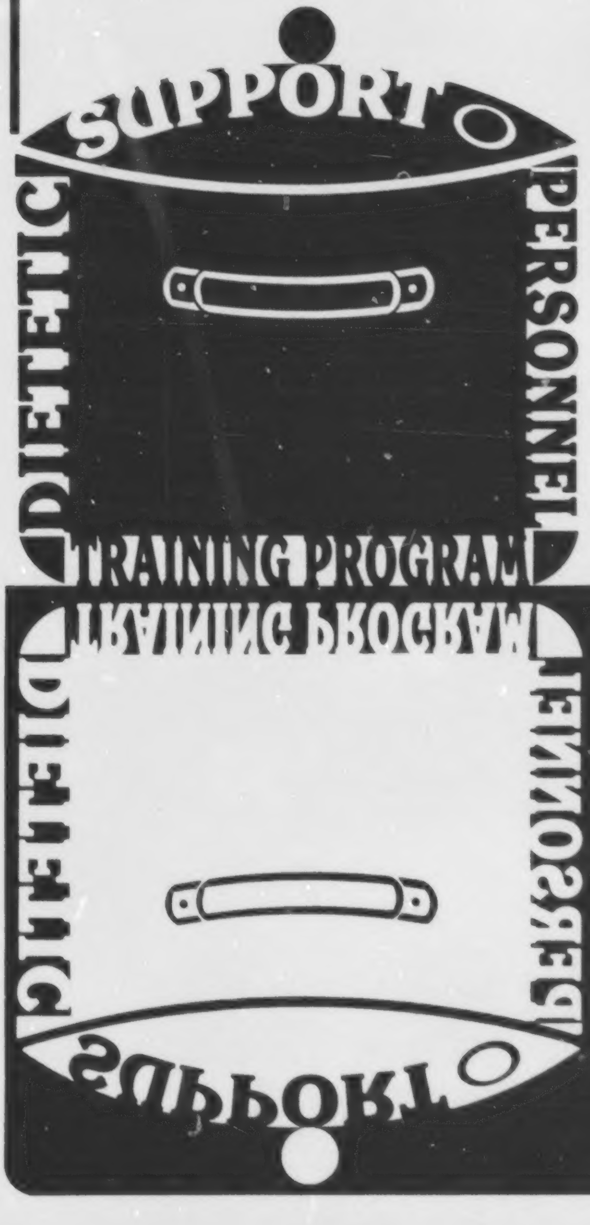
☐ Minor changes have been made to improve reproduction quality.

● Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

W D Frazier

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."



Food Production Worker

OK 82 1331028
Vol II of 3

84-002051

AD 1125

Food Production Worker

Written by

Ellen Barker, R.D.
Oklahoma City, Oklahoma

Lou Hall, R.D.
Pauls Valley, Oklahoma

Barbara McGhee, R.D.
Tulsa, Oklahoma

Under the Supervision of
Judy Milroy, R.D.
Dietetic Assistant Program Specialist
State Department of Vocational and Technical Education
Stillwater, Oklahoma

Developed by the
Curriculum and Instructional Materials Center
For the Division of Business/Industrial Training Services
Donna Metcalf, Coordinator
Oklahoma State Board of Vocational and Technical Education
Leslie Fisher, Chairman
Francis T. Tuttle, Director
Bob Patton, Coordinator, Curriculum and Instructional Materials Center

Copyright 1983
Oklahoma State Department of Vocational and Technical Education
Curriculum and Instructional Materials Center

All rights reserved.

Printed in the United States of America by the
Oklahoma State Department of Vocational and Technical Education
Stillwater, Oklahoma 74074

This publication, or parts thereof, may not be reproduced in any form by photographic, electrostatic, mechanical, or any other method, for any use including information storage and retrieval, without written permission from the publisher.

Use of commercial products in these instructional materials does not imply endorsement by the Oklahoma State Department of Vocational and Technical Education.

The Oklahoma State Department of Vocational and Technical Education does not discriminate on the basis of race, creed, color, national origin, sex, age, veteran status, or qualified handicap.

FOOD PRODUCTION WORKER

TABLE OF CONTENTS

SECTION A — NUTRITION IN FOOD SERVICE

Unit I Nutrition in Food Production 1-A
Unit II Diet Therapy 57-A

SECTION B — SANITATION AND SAFETY

Unit I Sanitation 1-B
Unit II Safety 45-B

SECTION C — FOOD PRODUCTION

Unit I Menu Planning, Purchasing, Receiving, and Storage 1-C
Unit II Food Preparation Equipment 41-C
Unit III Standardized Recipes 157-C
Unit IV Protein Cookery I 191-C
Unit V Protein Cookery II 263-C
Unit VI Preparation of Cereals, Breads, and Desserts 337-C
Unit VII Preparation of Fruits and Vegetables 425-C
Unit VIII Preparation of Sandwiches and Soups and the Use of Seasonings 487-C
Unit IX Production Scheduling and Service of Food 539-C
Unit X Cost Control in Food Production 561-C

SECTION D — SUPERVISION

Unit I Basic Supervisory Skills 1-D

FOREWORD

We believe that the most effective way to improve vocational education is through a sound instructional materials delivery system. The development of the *Dietetic Support Personnel Training Program* curriculum to replace the *Dietetic Assistant* curriculum has been based on input from administrators, dietitians, certified dietetic assistants, educators, and others representing virtually every type of health care facility in the state.

Food Production Worker serves as the second step of the occupationally sequenced *Dietetic Support Personnel Training Program.* Successful completion of this component will prepare the student for jobs such as cook's helper, baker's helper, salad person, or entry-level cook in a health care facility department of dietetics. This component is prerequisite for enrolling in the *Food Service Supervisor* course. Successful completion of all three components of the *Dietetic Support Personnel Training Program* leads to eligibility as a certified dietetic assistant.

This material provides a resource to both class and clinical instructors for greatly improving the quality of training provided for dietetic support personnel. Well-trained personnel from the dietetic departments of health care facilities have the potential to reduce cost while improving the quality of care provided.

Francis Tuttle, Director
Oklahoma State Department of
Vocational and Technical Education

Donna Metcalf, Coordinator
Business/Industrial Training
Services Division
Oklahoma State Department of
Vocational and Technical Education

PREFACE

The first formal program for training support personnel for health care facility dietetic departments was developed by Pauline Butler at University Medical Center in Oklahoma City. During the early 1960s, this program, approved by the American Dietetic Association, trained food service supervisors for Oklahoma City hospitals and nursing homes. In 1968, the need to provide such training throughout the state was recognized by Elizabeth Hensler, who was then Director of the Nutrition Division at the State Department of Health. Elizabeth Hensler and Mae Rollow, State Supervisor of Home Economics Division for State Department of Vocational and Technical Education at that time, worked together to set up a delivery system to provide this training statewide as needed. Many revisions have been made in the program since that time; however, none have been as extensive as the development of the current curriculum.

Food Service Worker, Food Production Worker, and *Food Service Supervisor* have been developed in response to a need expressed by former students, employers, and instructors to provide training for those involved in all aspects of preparing and serving foods in health care facilities. This new competency-based curriculum makes it possible to provide training that is job specific. Greater flexibility is combined with improved instructional materials for both instructors and students.

Throughout the planning and development phases of this project, a dedicated curriculum advisory committee and three conscientious and talented writers have cooperated fully with the staff of the Curriculum and Instructional Materials Center to produce a quality product. The result is a set of instructional materials that have the potential to make a significant contribution to improving the quality of nutritional care provided in health care facilities.

Judy Milroy
Dietetic Assistant Program Specialist
Curriculum and Instructional Materials Center
State Department of Vocational and Technical
Education

ACKNOWLEDGEMENTS

Sincere appreciation is expressed to the many individuals who have conscientiously contributed their time, talents, knowledge, and expertise during the development of this instructional materials package. Without their combined efforts, this publication would not have become a reality. The content of *Food Production Worker* was planned and reviewed by the following Dietetic Assistant Curriculum Advisory Committee members:

Ellen Barker, R.D., Instructor,
Consultant Dietitian
Oklahoma City, Oklahoma

Onah Bayless, R.D.
Institutional Services Division
Oklahoma State Department of Health
Oklahoma City, Oklahoma

Carol Beuch, R.D.
Children's Memorial Hospital
Oklahoma City, Oklahoma

Florene Chancey, R.D.
Dietetic Educator
Midwest City, Oklahoma

Naomi Dame, C.D.A.
President of Oklahoma HIEFSS
Bethany, Oklahoma

Glenyce Feeney, R.D.
Department of Corrections
Oklahoma City, Oklahoma

Lou Hall, R.D.
President of Oklahoma Dietetic Association
Pauls Valley, Oklahoma

Francille Hardeman
Institutional Services Division
Oklahoma State Department of Health
Oklahoma City, Oklahoma

Marcy Kirk
Adult Education Curriculum Specialist
State Dept. of Vo-Tech
Stillwater, Oklahoma

Bernice Kopel, Ed.D.
Dept. of Foods, Nutrition and
Institutional Administration
Oklahoma State University
Stillwater, Oklahoma

Barbara McGhee, R.D.
St. John's Hospital
Tulsa, Oklahoma

Jo Roth, R.D., Instructor
Consultant Dietitian
Stillwater, Oklahoma

Charlene Spencer, R.D., Chairperson
Oklahoma Consultant Dietitians/
Health Care Facilities
Ada, Oklahoma

Joyce Thompson, Supervisor
Home Economics Division
State Dept. of Vo-Tech
Stillwater, Oklahoma

Elsie Ward, C.D.A.
Food Service Director
Eastern State Hospital
Vinita, Oklahoma

Geraldine Williams, R.D., Instructor
Consultant Dietitian
Cherokee, Oklahoma

Esther Winterfeldt, Ph.D., R.D., Head
Department of Foods, Nutrition and
Institutional Administration
Oklahoma State University
Stillwater, Oklahoma

A special thank-you is extended to Charlotte Slemp, R.D., St. John's Medical Center, Beth Jones, R.D., and Oklahoma State Residence Halls food service, for allowing us to take photographs used in this curriculum.

The Graphics Division spent many dedicated hours in the physical production of the book. Under the supervision of Jenny Fowler, the Communications Center typed the drafts and typeset the final copy. Much of this work was done by Dona Landreth, Rose Primeaux, Pat Tate, Lori White, and Crissie Wickham. The Art Department provided a number of original illustrations and laid out the graphics used in the book. Special recognition is given to Dana Welborne, Regina Beaney, and Nancy Hilley for their contributions. Finally, thanks to the staff of the Print Shop for the superb work done on final production. Noel Wilcoxson and his crew are to be commended.

Thank-you to Terra McCluskey, Susan Walker, Jerry Weir, Barbara Harrison, Sue Buck, Lynne Murnane, Terri Perry, and Sue Feasley for their editorial assistance and to Dana Cole and Jim Thomas for their photography assistance. Thank-you also to the Mid-America Vocational Curriculum Consortium for permission to use some of the photos from their curriculum manual, *Food Service Production and Service*.

And last, but not least, Bob Patton, Joyce Sawatzky, Marcy Kirk, Terra McCluskey, and the entire staff of the CIMC are to be commended for their dedication to this project. There were many "uncharted waters" to cross because this program was a first in many respects. Their patience, courage, and willingness to cooperate with all involved have made a tremendous contribution to a difficult and lengthy development project.

USE OF THIS PUBLICATION

Instructional Units

Food Production Worker contains four sections and fifteen instructional units. A standard format was established in 1970 for the development of instructional materials for all Oklahoma vocational teachers. This format includes eight basic components that form a unit of instruction: performance objectives, suggested activities for the teacher, information sheets, assignment sheets, job sheets, transparency masters, tests, and answers to tests and assignment sheets. Depending on the specific objectives, there may or may not be transparency masters, assignment sheets, and job sheets included in the unit of instruction.

All of the unit components "zero in" on measurable and observable learning outcomes. Teachers are encouraged to supplement, personalize, localize, and motivate with these materials in order to develop a complete teaching/learning process.

Units of instruction are designed for use in more than one lesson or class period of instruction. Careful study of each unit of instruction by the teacher will help him or her determine the following

A. Amount of material that can be covered in each class period
B. Skills that must be demonstrated
    1. Supplies and equipment needed
    2. Amount of practice needed
    3. Amount of class time needed for demonstrations
C. Supplementary materials, such as pamphlets and filmstrips, that must be ordered
D. Resource people who must be contacted

Performance Objectives (white pages)

Each unit of instruction is based on the performance needed for successful employment in an occupational area. Performance objectives are stated in two forms: unit objectives, stating the subject matter to be covered in a unit of instruction, and specific objectives, stating the student performance necessary to reach the unit objective.

Since the objectives of the unit provide direction for the teaching/learning process, it is important that teachers and students have a common understanding of the intent of the objectives. Following is a list of performance terms, their meanings, and behavioral synonyms that may have been used in this material.

A. Name — The individual supplies a name for objects, events, or people

    Behavioral synonyms: Label, list, letter, record, reiterate, repeat, write

B. Identify — The individual selects a named, described, or pictured object by pointing to it, touching it, picking it up, or selecting it

    Behavioral synonyms: Select, mark, match, choose, judge

C. State a rule — The individual communicates a relationship or principle that could be used to solve problems or perform a task

D. Apply a rule — The individual supplies an answer to a problem by using a stated relationship or principle

Behavioral synonyms: Solve, calculate

E. Describe — The individual relates sufficient characteristics or properties of an object or event so that a second individual will be able to state what is being discussed

Behavioral synonyms: Define, discuss, interpret, recite, tell how, tell what happens when

F. Distinguish — The individual selects an object or event from two or more that are easily confused

Behavioral synonyms: Discriminate, differentiate

G. Order — The individual arranges three or more objects or events in a sequence based on a stated property

Behavioral synonyms: Arrange, sequence, list in order, classify, divide, isolate, sort

H. Construct — The individual makes a physical object, a verbal statement, or a drawing

(NOTE: *Construct* is used when the finished product or result is important.)

Behavioral synonyms: Draw, make, build, design, formulate, reproduce, transcribe, convert, put together, compile

I. Demonstrate — The individual performs several operations necessary to carry out a specified process

(NOTE: *Demonstrate* is used when it is desirable to watch the student perform a task, one of the highest levels of student performance.)

Behavioral synonyms: Show your work, show procedure, perform an experiment, perform the steps, operate, remove, replace, turn off/on, (dis)assemble, (dis)connect

The objectives should be provided for students and stressed throughout the teaching/learning process. This will help answer any questions concerning performance requirements for each instructional unit. The objectives can also help determine teaching strategies and instructional methods. Prepare for each unit by deciding how each objective can best be taught.

The objective sheet may also be used as a quick pretest to determine prior knowledge of students and to determine whether further study or activities are necessary. Teachers should feel free to modify, delete, or add objectives in order to meet the needs of the students and community. When changes in objectives are made, the teacher should remember to supply the needed information, assignment and/or job sheets, and criterion test items.

Suggested Activities (pink pages)

This component is included only in teacher material. The suggested activities page assists teachers during the preparation stage of the teaching/learning process by providing suggestions for delivery and/or presentation during the instructional process. Read the suggested activities before teaching the units so that supplemental materials can be obtained, audiovisual materials prepared, and outside resources contacted. Duties of the teacher will vary according to the particular unit.

The references that are listed are ones used in the development of each unit. They should be used by the teacher to supplement knowledge of the subject area or to help students with particular interests or occupational objectives in the area covered.

Information Sheet (green pages)

The information sheet provides "must know" content essential for meeting the cognitive (knowledge level) objectives of the unit. The information is written in a topical outline form and is keyed to the specific objectives.

Teachers will find that the information sheet serves as an excellent guide for presenting background knowledge necessary to develop the skills specified in the unit objective. The information sheet may also be used for coordination activities and advisory committees.

Students should read the information sheet before the information is discussed in class. Space is provided in margins for students and teachers to add notes that supplement, localize, personalize, or provide motivation for each unit.

Transparency Masters (white pages in teacher material and green in student material)

Transparency masters provide information in a special way. Transparencies direct the class' attention to the topic of discussion. Transparencies may present new information, or they may reinforce information presented in the information sheet. They are particularly effective when identification is necessary. Transparencies should be made and placed in the notebook where they will be immediately available for use.

Class Assignment Sheets (brown pages) and **Clinical Assignment Sheets** (grey pages)

Assignment sheets give students a chance at problem solving, self-assessment, and/or practical experience with the information. They assist students in the application of knowledges that are necessary prerequisites to skill development. These may be given to the student for completion in class or used for homework assignments. Answer sheets are provided when appropriate and can be used by the student and/or teacher for checking student progress.

Job Sheets (blue pages)

Job sheets are another important segment of a unit of instruction. The job sheets provide a list of equipment, tools, and materials needed to complete a manipulative or psychomoter skill. They describe a step-by-step procedure needed to complete each task or job. Diagrams, photographs, and illustrations are provided to assist students in achieving the skill.

A teacher should demonstrate to students the procedures outlined in each job sheet. Furthermore, the teacher needs to localize the job sheet according to the equipment and supplies available in the local situation. Job sheets also furnish potential employers with a picture of the skills being taught and the performances they might reasonably expect from a person who has had this vocational instruction.

Tests (yellow pages)

This component provides criterion-referenced evaluation of every objective listed in the unit of instruction. It is crucial to note that both paper/pencil and performance objectives must be evaluated.

The tests may be written or oral. It is recommended that the tests be divided into shorter tests covering three or four objectives at a time and given soon after those objectives have been covered. A selection of questions from the units covered may be used for final tests at the end of each term if desired. If objectives have been added, deleted, or modified, be sure to make the changes on the test.

The acceptable response on a unit test — 85 percent in most units — may be raised or lowered to fit the topic or students' ability levels. The percentage applies to the overall score, not to each question. The final unit grade should be obtained by using the paper/pencil score along with teacher evaluations of student demonstrations of the desired skills.

Answers to Test and Assignment Sheets (pink pages)

These components are designed to assist the teacher in evaluation of student performances.

Page Numbering

Each publication from the Curriculum and Instructional Materials Center is assigned a specific abbreviation. For example, *Food Production Worker* has been abbreviated FPW. The sections are lettered alphabetically; the units are then numbered consecutively within each section. An example of a page number is FPW-1-A. Since CIMC publications are loose leaf, this system of page numbering was adopted so that pages from different manuals would not get mixed up.

Methods of Disseminating Material

Material may be given out a unit or page at a time to keep the material before the student always new. Some teachers ask students to furnish a three-ring binder for the units. This is more convenient for taking the materials home to study. Upon completion, each unit is placed in a larger binder. The large binders may be purchased at cost from the CIMC. Some teachers store the materials by units in filing cabinets or boxes until needed. All the units may be given out at once if desired.

For best results, provide student materials for each student. Student materials contain everything but the test answers, answers to assignment sheets, and suggested activities. All tests are collated at the back of student material and should be removed and stored until needed. Students should be allowed to take their materials home at the end of the year.

Teaching Methods

It is a challenge to keep students motivated. Supplement the objectives by providing the "why," personal experiences, and current information. Prepare for each unit by deciding how each objective can best be taught. Allow students to become involved in preparing and planning.

NUTRITION IN FOOD PRODUCTION
UNIT I

UNIT OBJECTIVE

After completing this unit, the student should be able to apply knowledge of basic nutrition to preparing and serving nutritionally adequate meals. This knowledge will be shown by completing assignment sheets and unit test with a minimum score of 85 percent.

SPECIFIC OBJECTIVES

After completing this unit, the student should be able to

1. Match terms associated with nutrition in food production to their correct definitions.
2. Identify primary functions of leader nutrients.
3. Match food sources to correct leader nutrients.
4. List leader nutrients contributed to the diet by each of the Daily Food Guide groups.
5. Describe dietary needs for life cycle stages.
6. State the number of servings from each of the Daily Food Guide groups for a healthy adult.
7. State adjustments in number and size of servings from each of the Daily Food Guide groups for persons in various life cycle stages.
8. Describe factors in food storage and preparation that prevent nutrient loss.
9. Select from a list tips to preserve nutrients in foods.
10. Select nutrients provided by the Daily Food Guide.
11. Recommend daily servings from the Daily Food Guide for persons in various life cycle stages.
12. Identify common practices of preparation and service that affect nutrient content of foods.
13. Make recommendations to improve nutritional adequacy of a week's menu.
14. Distinguish among foods to make menu substitutions.

NUTRITION IN FOOD PRODUCTION
UNIT I

SUGGESTED ACTIVITIES

I. Suggested activities

- A. Order materials to supplement unit.
  - 1. Pamphlets
    - a. *Building a Better Diet*--Program Aid #1242--Available from U.S. Department of Agriculture, Food and Nutrition Service (Food Stamp Program).
    - b. *The Changing American Diet*--Available from Center for Science in the Public Interest, 1755 South Street Northwest, Washington, D.C. 20009.
    - c. *Food Facts Talk Back*--Available from The American Dietetic Association, 430 North Michigan Avenue, Chicago, Illinois 60611.
    - d. *The Great Vitamin Mystery*--Available from the National Dairy Council, 6300 North River Road, Rosemont, Illinois 60018.
  - 2. Teaching aids
    - a. Books of spirit masters
      - 1) *Activities for Teaching Nutrition*--Available from Nasco, 901 Janesville Avenue, Fort Atkinson, Wisconsin 53538.
      - 2) *Pencil and Paper Fun to Teach Nutrition*--Available from Good Ideas Books Co., 20 Highmount Avenue, Warren, New Jersey 97060.
      - 3) *Project Nutrition*--Available from Kellogg's Project Nutrition Unit, P.O. Box 9113, St. Paul, Minnesota 55191.
    - b. Bar graphs of leader nutrients in common foods--Available from National Dairy Council, 6300 North River Road, Rosemont, Illinois 60018.

SUGGESTED ACTIVITIES

3. Films

   a. *Vitamins from Food.* 16 mm, color, 21 minutes, Association Films, Inc., 1968. Available from Association Films, Inc., 8615 Directors Row, Dallas, Texas 75247.

   (NOTE: This film dramatizes the stories of vitamin C and thiamin. It illustrates that our growth and energy depend on the taking apart and putting together of cells. It tells why vitamins are important in this process; why our bodies will not function at top efficiency if our diet does not include an adequate supply of vitamins; why more vitamins than are needed will be wasted or cause trouble; and why vitamin pills can never take the place of foods. It also shows which foods are good sources for certain vitamins and points out that our diet can supply all the vitamins we need, but that it is up to us to make certain that it does.)

   b. *Food for Life: The Basic Four*--35mm filmstrip, 1 cassette (teaching kit), Tupperware Home Parties, n.d. Available from Tupperware Home Parties Educational Services, Department FLO-8, P.O. Box 2353, Orlando, Florida 32802.

   (NOTE: Each food group is thoroughly reviewed in a twelve- to fifteen-minute filmstrip that explains the foods that are included in each group and highlights their nutritional importance. Information is given on how to buy, handle, and store the different kinds of foods in each group. The filmstrip includes physical factors affecting the amount of food required by people within various age groups and varying life-styles, in addition to the relationship of nutrients to personal health and well-being.)

B. Provide students with objective sheet.

C. Provide students with information and assignment sheets.

D. Discuss unit and specific objectives.

E. Discuss information and assignment sheets.

F. Develop appropriate learning activities for special needs students.

G. Cover name of food in bar graph available from National Dairy Council so that students cannot read it; have them try to guess food by nutrients in it.

H. Have students write one letter in favor of, or in opposition to, one television food commercial.

I. Request that each student bring an example of "Food Porn" (food with little nutritional value but sold through an extensive advertising campaign) to share with class.

SUGGESTED ACTIVITIES

J. Have students collect pictures from magazines of complete and incomplete proteins, and have the class as a group classify them.

K. Have students read the labels on five different products in a grocery, and record if salt or other sodium compound has been added.

L. Have each student visit an elderly friend or relative and record one day's intake. Have students check intake for adequacy with the Daily Food Guide groups.

M. Give test.

N. Reteach if necessary.

II. Instructional materials

A. Objective sheet

B. Suggested actvities

C. Information sheet

D. Class assignment sheets

1. Class Assignment Sheet #1--Complete Nutrition Crossword Puzzle on Leader Nutrients
2. Class Assignment Sheet #2--Match Food Sources to Leader Nutrients
3. Class Assignment Sheet #3--Select Nutrients Provided by the Daily Food Guide
4. Class Assignment Sheet #4--Recommend Daily Servings from the Daily Food Guide for Persons in Various Life Cycle Stages
5. Class Assignment Sheet #5--Identify Common Practices of Preparation and Service that Affect Nutrient Content of Foods

E. Answers to class assignment sheets

F. Clinical assignment sheets

1. Clinical Assignment Sheet #1--Make Recommendations to Improve Nutritional Adequacy of a Week's Menu
2. Clinical Assignment Sheet #2--Distinguish Among Foods to Make Menu Substitutions

G. Answers to clinical assignment sheets

H. Test

I. Answers to test

SUGGESTED ACTIVITIES

III. Unit references

- A. *Conserving the Nutritive Values in Foods.* U.S. Department of Agriculture, Home and Garden Bulletin No. 90. Washington, D.C.: U.S. Government Printing Office, n.d.
- B. Deutsch, Ronald. *Realities of Nutrition.* Palo Alto, California: Bull Publishing Company, 1976.
- C. McNutt, Kristen W., and David R. McNutt. *Nutrition and Food Choices.* Chicago: Science Research Associates, 1978.
- D. Mitchell, Helen S., et al. *Nutrition in Health and Disease,* 16th ed. Philadelphia: J.B. Lippincott Co., 1976.
- E. Robinson, Corrine H. *Basic Nutrition and Diet Therapy,* 4th ed. New York: Macmillan Publishing Company, Inc., 1980.
- F. Sneed, Phyllis J. "Food: What's In It For You?" *Family Living Topics.* Stillwater, Oklahoma: Oklahoma State University Cooperative Extension Service, 1977.

NUTRITION IN FOOD PRODUCTION
UNIT I

INFORMATION SHEET

I. Terms and definitions

A. Leader nutrients--Key nutrients needed by body

(NOTE: If the daily diet provides these leader nutrients in proper amounts, other nutrients needed in smaller amounts will likely be included.)

B. B-complex vitamins--Eight well-defined B vitamins and several related compounds; known collectively as "family" of B vitamins

C. Vitamins--Chemical compounds that occur in minute quantities in foods; necessary for life and growth

(NOTE: Total weight of all vitamins needed for one day is less than 100 milligrams. Recommended total daily intake of minerals is twenty times that of vitamins.)

D. Citrus fruit--Fruit that is a good source of vitamin C

EXAMPLES: Oranges, grapefruits, lemons, limes, tangerines, citrons, kumquats

E. Water-soluble vitamins--Vitamins that can be dissolved in water; cannot be stored in body

EXAMPLES: Vitamin C, B-complex

F. Fat-soluble vitamins--Vitamins that can be dissolved in fat; can be stored in body

EXAMPLES: Vitamins A, D, E, K

G. Complete protein--Food sources of protein that promote both well-being and growth; derived from animal sources

EXAMPLES: Milk, cheese, egg, meat, fish, poultry

H. Incomplete protein--Food sources of protein that alone cannot promote well-being nor support growth; derived from plant sources

EXAMPLE: Cereals, nuts, dry beans, peas, vegetables

I. Fortify--To add nutrients that either do not occur naturally in food or occur in relatively small amounts

EXAMPLE: Iodine in salt

J. Enrich--To replace nutrients lost in processing; to improve nutritional quality of food

EXAMPLE: Enriched bread

INFORMATION SHEET

K. Fiber--Plant carbohydrate that is not digested by humans; also known as *bulk, roughage, residue, cellulose*

EXAMPLES: Food sources include whole grain breads and cereals, bran, dry peas and beans, nuts, raw fruits, and vegetables

L. Nutrients--Chemical compounds that give nourishment to body

M. Calorie--Unit of measurement of energy that food provides body

(NOTE: The large calorie, or kilocalorie, is the amount of heat required to raise 1 kilogram of water 1 degree centigrade.)

EXAMPLE:

APPROXIMATE ENERGY VALUE IN AMOUNTS DESIGNATED BY THE DAILY FOOD GUIDE

Food Group	Number of Servings	Calories per Serving	Total Calories
Fruit/vegetable	4	50	200
Bread/cereal	4	100	400
Milk/dairy	2	150	300
Meat	2	250	500
		Total	1,400

II. Primary functions of leader nutrients (Class Assignment Sheet #1)

A. Proteins--Build and repair body tissues and supply energy

B. Carbohydrates--Supply energy and spare protein ,for tissue building and repair

C. Fats--Supply and store energy in the body

D. Minerals

1. Calcium--Builds strong teeth and bones
2. Phosphorus--Works with calcium to build teeth and bones
3. Iron--Helps build healthy blood and aids cells in using oxygen
4. Iodine--Helps body use energy efficiently
5. Sodium--Helps maintain water balance of body; found in fluids outside cells
6. Potassium--Helps maintain water balance of body; found in fluids inside cells

INFORMATION SHEET

E. Vitamins

1. Vitamin A--Keeps skin healthy; aids vision in dim light
2. Thiamin (vitamin B_1)--Promotes healthy nerves and good appetite
3. Riboflavin (vitamin B_2)--Promotes healthy skin around mouth and eyes
4. Niacin (vitamin B_3)--Promotes healthy nerves; aids normal digestion
5. Vitamin C--Helps body resist infections; promotes healing; is cement that connects cells of body
6. Vitamin D--Helps body absorb calcium

F. Water--Carries nutrients to body cells and waste products away from cells

III. Food sources of leader nutrients (Class Assignment Sheet #2)

A. Proteins--Meats, eggs, milk, cheese, peanut butter, dried beans, dried peas

B. Carbohydrates--Sugar, jelly, honey, fruits, cereals, grains, vegetables

C. Fats--Butter, margarine, cream, cooking oil, eggs, meats, whole milk

D. Minerals

1. Calcium--Milk and dairy products, except butter
2. Phosphorus--Milk, cheese, eggs
3. Iron--Liver, egg yolk, meats
4. Iodine--Iodized salt, saltwater fish
5. Sodium--Salt, processed foods
6. Potassium--Meats, bananas, oranges, dried fruits

E. Vitamins

1. Vitamin A--Liver, deep yellow or dark green fruits and vegetables

   EXAMPLES: Apricots, cantaloupe, carrots, broccoli, turnip greens, dark salad greens

2. Thiamin (vitamin B_1)--Meats, whole grain or enriched breads or cereals
3. Riboflavin (vitamin B_2)--Meats, whole grain or enriched breads or cereals, milk

INFORMATION SHEET

4. Niacin (vitamin B_3)--Meats, whole grain or enriched breads or cereals
5. Vitamin C--Citrus fruits, tomatoes
6. Vitamin D--Fortified milk, eggs

F. Water--Beverages, soups, gelatin

(NOTE: Most foods contain some water.)

IV. Leader nutrients contributed to the diet by each of the Daily Food Guide groups (Class Assignment Sheet #3)

A. Milk/dairy group

1. Represents leading source of calcium
2. Contains complete protein, carbohydrate, fat (unless skimmed milk)
3. Provides phosphorus, riboflavin, vitamin D, other nutrients
4. Contributes vitamin A, if whole milk or fortified

B. Meat group

1. Represents best source of iron
2. Supplies complete protein, fat
3. Provides thiamin, riboflavin, niacin, other nutrients
4. Contributes vitamin A, if organ meats are included

C. Fruit/vegetable group

1. Supplies almost all vitamin C
2. Supplies over one-half vitamin A
3. Provides source of most vitamins and minerals
4. Contributes fiber, carbohydrate, small amounts of incomplete protein

D. Bread/cereal group

1. Supplies B-complex, especially the whole grain or enriched products
2. Contains incomplete protein and carbohydrate
3. Provides other nutrients such as iron in whole grain and enriched breads and cereals
4. Supplies fiber, if whole grain

INFORMATION SHEET

V. Dietary needs for life cycle stages (Class Assignment Sheet #4)

(NOTE: Everyone in each stage of life needs similar nutrients but in different amounts. Requirements vary among individuals because individuals are different in stages of growth and development, sex, body size, weight, and activity. Nutritional needs are increased if the body is stressed, as in cases of an elevated temperature, surgery, injury, a burn, or being bedfast.)

A. Pregnant and nursing women

(NOTE: Diet during pregnancy affects both the mother and the unborn child.)

1. Well-balanced diet
2. Increased allowances for almost all essential nutrients at beginning of fourth month
3. Increased protein, calcium, and iron

   (NOTE: These nutrients are especially important during pregnancy. Protein is needed for growth of the fetus. Also, the unborn baby needs to build up reserves of iron before birth because milk, which will be the baby's main source of nourishment, is not a good source of iron. Calcium is needed for well-formed bones and teeth.)

4. Increased calorie intake

   (NOTE: An extra 300 calories a day are allowed during pregnancy, and an extra 500 calories a day are allowed during lactation.)

B. Infants

(NOTE: Nutrient and calorie needs are high during this stage due to rapid growth taking place and lack of any stored nutrients.)

1. High intake of iron

   (NOTE: Breast milk or formula provides all nutrient needs, except iron, for an infant four to six months of age. Full-term babies should have enough iron stored to last for the first three months of life.)

2. High calorie intake in proportion to body weight

C. Children

(NOTE: Nutrient needs vary from one child to another depending on age, growth rate, and activity level.)

1. Enough calories for continuous weight gain
2. Well-balanced diet

INFORMATION SHEET

3. High protein, vitamin, and mineral intake to promote growth and development

D. Adolescents

(NOTE: Most teenagers undergo what is called the *adolescent growth spurt*. This is a period of rapid growth.)

1. Well-balanced diet
2. Increased calories during adolescent growth spurt

E. Adults

(NOTE: Habits may need to change to prevent weight gain as people in this life cycle become less active and have decreased calorie needs.)

1. Well-balanced diet
2. Decreased calorie intake

F. Senior citizens

(NOTE: During this stage organs and tissues are less active or less able to do extra work. Adjustment in calorie intake and preparation of foods will need to be made.)

1. Well-balanced diet
2. Decreased calorie intake

VI. Number of servings from each of the Daily Food Guide groups for a healthy adult (Clinical Assignment Sheets #1 and #2)

A. Milk/dairy group--Two servings daily

EXAMPLE: 2 cups daily--1 serving = 1 cup milk

B. Meat group--Two servings daily

EXAMPLE: 4 ounces daily--1 serving = 2 ounces meat *or* 2 eggs *or* 4 tablespoons peanut butter *or* 1 cup cooked dry beans

C. Fruit/vegetable group--Four or more servings daily

EXAMPLE: 2 cups daily--1 serving = ½ cup juice *or* 1 cup raw vegetable *or* ½ cup cooked vegetable

1. Include one good source of vitamin C every day
2. Include a good source of vitamin A at least four times per week

   (NOTE: These two vitamins must be watched very carefully when making substitutions in the menu. Examples are found in Clinical Assignment Sheet #2.)

INFORMATION SHEET

D. Bread/cereal group--Four servings daily

EXAMPLE: 1 serving = 1 slice bread *or* 1/2 cup cooked cereal *or* 3/4 to 1 cup dry cereal

VII. Adjustments in number and size of servings from each of the Daily Food Guide groups for persons in various life cycle stages (Class Assignment Sheet #4)

A. Milk/dairy group

1. Children--Three or more servings daily

   (NOTE: In general, use smaller servings of 4 to 6 ounces each for children under nine, unless they are experiencing growth spurts. Serving size should then be 8 ounces.)

2. Adolescents--Four or more 8-ounce glasses daily

3. Pregnant or nursing women--Four or more 8-ounce glasses daily

B. Meat group

1. Children--4 ounces daily

2. Adolescents--6 or more ounces daily

3. Pregnant or nursing women--6 or more ounces daily

C. Fruit/vegetable group

1. Children--Four or more 1/2-cup servings

   (NOTE: For children under three, 1/4-cup serving is adequate.)

2. Adolescents--Four or more 1/2-cup servings

3. Pregnant or nursing women--Six or more 1/2-cup servings

D. Bread/cereal group

(NOTE: Average serving is equal to one slice bread, 1/2 cup cooked cereal or 3/4 to 1 cup dry cereal.)

1. Children--Four or more servings

   (NOTE: For children under three, one-half slice bread or 1/4 cup cooked cereal is adequate for one serving.)

2. Adolescents--Four or more servings

3. Pregnant or nursing women--Six or more servings

INFORMATION SHEET

VIII. Factors in food storage and preparation that prevent nutrient loss (Class Assignment Sheet #5)

A. Storage

1. Store frozen foods at 0°F or below
2. Rotate stock

   (NOTE: First in should be first out.)

3. Avoid undue exposure to oxygen or excessive heat in storeroom
4. Freeze foods in usable units
5. Store milk in containers that do not allow light to penetrate

   (NOTE: Milk is a major source of riboflavin, which is destroyed by exposure to light.)

B. Preparation

1. Use sharp knives and/or vegetable peelers

   (NOTE: The bruising that results from use of dull utensils contributes to loss of vitamin C.)

2. Cook vegetables in large pieces when possible to prevent loss of vitamin C

   EXAMPLE: Whole, steamed or baked potato in the skin

3. Cook frozen vegetables before thawing

   (NOTE: Thawing causes nutrient loss and ruins texture and appearance.)

4. Plan to serve many raw fruits and vegetables

   (NOTE: Raw fruits and vegetables contain good fiber content, and there is no nutrient loss in cooking.)

5. Incorporate outer leaves of vegetables as often as possible

   (NOTE: The vitamin concentration is higher in outer leaves.)

6. Pour juices as near serving time as possible

   (NOTE: Juices should be kept in tightly covered containers to prevent loss of vitamin C.)

7. Avoid soaking vegetables for long periods of time

   (NOTE: Soaking in water promotes vitamin loss.)

INFORMATION SHEET

8. Avoid overcooking vegetables

   (NOTE: Overcooked vegetables lose vitamins, color, and texture.)

9. Use as little water as possible in cooking vegetables

   (NOTE: Water, whether it is used for washing, canning, soaking, or cooking foods, causes loss of water-soluble vitamins.)

10. Cook vegetables as close to serving time as possible

    (NOTE: Holding longer than twenty minutes on steam table causes loss of nutrients, flavor, and attractiveness.)

11. Cook vegetables as quickly as possible

    (NOTE: Vitamin C and thiamin are easily destroyed by heat.)

    EXAMPLE: Heat one-half liquid of canned vegetables to boiling; add vegetables; heat ten minutes at 190°F. Always boil water or liquids *before* adding vegetables.

12. Cook and serve rice without rinsing or washing

    (NOTE: Washing rice rinses vitamins down the drain. Thiamin loss can be 10 to 25 percent.)

13. Cook protein foods at low to moderate temperatures (275°F to 350°F)

    (NOTE: Cooking protein foods at high temperatures, above 350°F, causes loss of B-complex vitamins, excessive shrinkage, and tough product.)

14. Use liquids that vegetables are canned or cooked in for gravies, sauces, or soups

15. Avoid using baking soda when cooking vegetables

    (NOTE: Baking soda is an alkali and destroys vitamins, though it is sometimes incorrectly used for "greening" vegetables.)

IX. Tips to preserve nutrients in foods

   A. Chop or tear outer green leaves of lettuce and add to salads or cook in stews

      (NOTE: The outer leaves of lettuce are higher in calcium, iron, and vitamin A than the inner leaves, even though they are coarser.)

   B. Use core of cabbage as well as outer leaves

      (NOTE: The core is high in vitamin C.)

INFORMATION SHEET

C. Include broccoli leaves in the diet

(NOTE: Leaves are much higher in vitamin A than are the stalks or buds.)

D. Store salad greens in moisture-proof bags

(NOTE: High humidity helps retain nutrients.)

E. Ripen tomatoes at 60°F to 70°F

(NOTE: Do not ripen tomatoes in the refrigerator. Tomatoes allowed to ripen at room temperature have higher vitamin C.)

F. Avoid holding cooked vegetables for long periods of time

G. Reheat leftover vegetables as quickly as possible

(NOTE: Nutrients are lost when vegetables are held or reheated for excessive periods of time. This is especially true of vitamin C.)

EXAMPLE:

LOSSES IN VITAMINS AS A RESULT OF COOKING VEGETABLES AND KEEPING THEM WARM

	Time (hours)		Vitamin Loss (%)			
Vegetable	Cooking	Warming	Vitamin C	Thiamin	Riboflavin	Niacin
Cabbage, boiled	*	0	70	60	50	†
Carrots, boiled	*	0	70	50	30	50
Potatoes, boiled	*	0	10	15	†	15
	*	1	20	20	†	20
Potatoes, baked	*	4	60	20	†	‡
Spinach, boiled and drained	1/6	1	95	90	80	85

*Cooked until done
†Data not available
‡Insignificant loss.

Source: Combined from articles published by F. Streightoff, H.E. Munsell, M.L. Orr, et al., in *Journal of The American Dietetic Association 22* (1946): 17, 511; 25 (1949): 420, 770.

INFORMATION SHEET

I. Store canned vegetables in a cool, dry storeroom

(NOTE: When vegetables are stored at temperatures of 80°F or above, vitamin C and thiamin loss may reach 25 percent each in one year.)

J. Conserve the valuable nutrients of milk by keeping it cold, covered, and away from strong light

K. Store fresh berries unwashed

(NOTE: Berries lose vitamin C quickly if hulled or bruised.)

L. Serve the soft bones found in canned fish

(NOTE: Bones contain large amounts of calcium.)

M. Get the full nutritive value from meat by using the drippings and juices to save the water-soluble B vitamins

(NOTE: Fat should be removed from the drippings by refrigeration. Fat will harden on top of the drippings and can then be easily removed.)

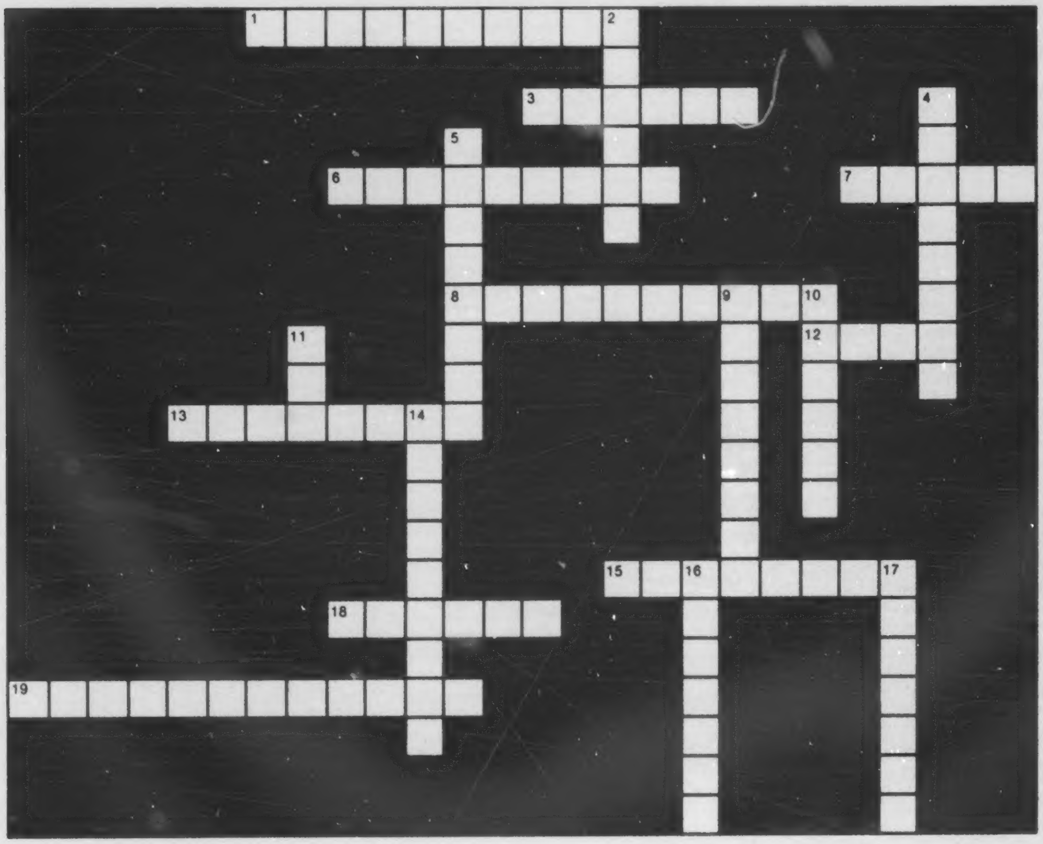
NUTRITION IN FOOD PRODUCTION
UNIT I

CLASS ASSIGNMENT SHEET #1--COMPLETE NUTRITION CROSSWORD PUZZLE ON LEADER NUTRIENTS

NAME ______________________________ SCORE ______________

Each of the leader nutrients performs its own specific function in the body. Understanding the functions of each will help you make better food choices. Remember, variety is the key to good nutrition. Use the clues on the following page to complete the nutrition crossword puzzle below.

NUTRITION CROSSWORD PUZZLE



FPW - 21-A

CLASS ASSIGNMENT SHEET #1

ACROSS

1. Mineral that works with calcium to build teeth and bones
3. Mineral that helps use energy efficiently
6. Mineral that helps maintain water balance of body; found in fluids inside cells
7. Carries nutrients to body cells and waste products away from cells
8. B-vitamin that promotes healthy skin around mouth and eyes
12. Mineral that helps build healthy blood and aids cells in using oxygen
13. Nutrients that build and repair body tissue and supply energy
15. Helps body resist infections; promotes healing; is cement that connects cells of body
18. Fats--Supply and store ____________ in the body
19. Supplies energy and spares protein for tissue building and repair

DOWN

2. Mineral that helps maintain water balance of body; found in fluids outside cells
4. Vitamin that helps body absorb calcium
5. Units of measurement of energy that food provides body
9. Keeps skin healthy; aids vision in dim light
10. B-vitamin that promotes healthy nerves, aids normal digestion
11. Storage form of energy in the body
14. Chemical compounds that give nourishment to body
16. B-vitamin that promotes healthy nerves and good appetite
17. Mineral that builds strong teeth and bones

FPW - 23-A

NUTRITION IN FOOD PRODUCTION
UNIT I

CLASS ASSIGNMENT SHEET #2--MATCH FOOD SOURCES TO LEADER NUTRIENTS

NAME ______________________________ SCORE ______________

Though each nutrient plays a special part in keeping the body healthy, there are many jobs performed in the body that require nutrients to work together. It is this teamwork of nutrients that provides good nutrition.

Identifying major sources of nutrients will help you develop good eating habits. Match the food sources below with their leader nutrients. Write the correct numbers in the blanks. Answers may be used more than once.

__________ A. Vitamin A

__________ B. Niacin

__________ C. Potassium

__________ D. Riboflavin

__________ E. Calcium

__________ F. Vitamin C

__________ G. Sodium

__________ H. Thiamin

__________ I. Iron

__________ J. Vitamin D

__________ K. Iodine

__________ L. Phosphorus

1. Meats, whole grain or enriched breads or cereals
2. Fortified milk, eggs
3. Citrus fruits, tomatoes
4. Meats, bananas, oranges, dried fruits
5. Liver, deep yellow or dark green fruits and vegetables
6. Milk and dairy products, except butter
7. Salt, processed foods
8. Iodized salt, saltwater fish
9. Meats, whole grain or enriched breads and cereals, milk
10. Milk, cheese, eggs
11. Liver, egg yolk, meats

NUTRITION IN FOOD PRODUCTION
UNIT I

CLASS ASSIGNMENT SHEET #3--SELECT NUTRIENTS PROVIDED BY THE DAILY FOOD GUIDE

NAME ____ SCORE ____________

Daily food intake should supply all the nutrients necessary to meet body needs and maintain health. Each food group in the Daily Food Guide supplies a variety of nutrients. Servings from each group are required each day to ensure good nutrition. The food groups are interrelated, but no one group has all the necessary nutrients. To understand this relationship, it is important to identify leader nutrients provided by the Daily Food Guide.

Using the information provided in Information Sheet, Section IV, and the chart on the following page, select the leader nutrients in each food group from the list below. Write an "X" in the blank before each correct answer.

FOOD GROUP **LEADER NUTRIENTS PROVIDED**

MILK/DAIRY

_____A. Complete protein
_____B. Iron
_____C. Vitamin D
_____D. Riboflavin
_____E. Fat
_____F. Phosphorus
_____G. Vitamin C
_____H. Vitamin A
_____I. Calcium
_____J. Carbohydrate

MEAT

_____A. Calcium
_____B. Iron
_____C. Complete protein
_____D. Carbohydrate
_____E. Fat
_____F. Thiamin
_____G. Vitamin A in organ meats
_____H. Vitamin C
_____I. Niacin
_____J. Riboflavin

FRUIT/VEGETABLE

_____A. Small amounts of incomplete protein
_____B. Vitamin C
_____C. Vitamin A
_____D. Carbohydrate
_____E. Fat
_____F. Fiber
_____G. Small amounts of calcium
_____H. Small amounts of iron
_____I. Trace of thiamin
_____J. Trace of riboflavin

BREAD/CEREAL

_____A. Complete protein
_____B. Fiber in whole grains
_____C. Incomplete protein
_____D. Carbohydrate
_____E. Trace of fat
_____F. Niacin
_____G. Thiamin
_____H. Iron in whole grain and enriched products
_____I. Riboflavin

CLASS ASSIGNMENT SHEET #3

NUTRITIVE VALUE OF A BASIC DIET PATTERN FOR THE ADULT IN HEALTH[1]

							Minerals		Vitamins				
Food	**Measure**	**Weight gm**	**Energy kcal**	**Protein gm**	**Fat gm**	**Carbohydrate gm**	**Ca mg**	**Fe mg**	**A I.U.**	**Thiamin mg**	**Riboflavin mg**	**Niacin mg**	**Ascorbic Acid mg**
Milk/Dairy Group	2 cups	488	320	18	18	24	576	0.2	700	0.14	0.82	0.4	4
Meat Group													
Egg	1	50	80	6	6	tr	27	1.1	590	0.05	0.15	tr	0
Meat, fish, poultry (Lean cooked)[2]	4 ounces	120	240	33	10	0	17	3.6	35	0.32	0.26	7.4	0
Fruit/Vegetable Group													
Leafy green or deep yellow	1/4 to 1/3 cup[3]	50	15	1	tr	3	14	0.5	3,700	0.03	0.04	0.3	14
Other vegetable	1/4 to 1/3 cup[4]	50	15	1	tr	3	10	0.4	240	0.03	0.03	0.3	7
Potato	1 medium	122	80	2	tr	18	7	0.6	tr	0.11	0.04	1.4	20
Citrus fruit[5]	1 serving	100	40	1	tr	10	10	0.2	160	0.07	0.02	0.3	40
Other fruit[6]	1 serving	100	60	1	tr	16	12	0.5	600	0.04	0.04	0.4	9
Bread/Cereal Group													
Cereal, enriched or whole grain[7]	3/4 cup	30 (dry)	105	3	tr	22	10	0.8	0	0.12	0.04	0.8	0
Bread, enriched or whole grain	3 slices	75	210	6	3	39	63	1.8	tr	0.18	0.15	1.8	tr
			1,165	72	37	135	746	9.7	6,025	1.09	1.59	13.1[8]	94
Recommended Dietary Allowances													
Women (over 23 years)			2,000	44			800	18	4,000	1.0	1.2	13	60
Man (over 23 years)			2,700	56			800	10	5,000	1.4	1.6	18	60

[1] Values for foods in the meat, fruit/vegetable, and bread/cereal groups are weighted on the basis of the approximate consumption in the United States.

[2] Calculations based upon an average weekly intake for meat of 11 ounces beef, 7 1/2 ounces pork, 6 1/2 ounces poultry, 1 1/2 ounces lamb and veal, and 1 1/2 ounces fish.

[3] Dark green leafy and deep yellow vegetables include carrots, green peppers, broccoli, spinach, endive, escarole, and kale. It is assumed that an average serving of 1/2 cup is eaten at least every other day.

[4] Other vegetables include tomatoes, lettuce, cabbage, snap beans, lima beans, celery, peas, onions, corn, cucumbers, beets, and cauliflower. It is assumed that an average serving of 1/2 cup is eaten at least every other day.

[5] Citrus fruit includes fresh, canned, and frozen oranges, orange juice, grapefruit, and grapefruit juice.

[6] Other fruit includes apples, peaches, pears, apricots, grapes, plums, prunes, berries, and bananas.

[7] Cereals include corn flakes, wheat flakes, macaroni, oatmeal, shredded wheat, and enriched rice.

[8] The protein in this diet contains about 720 mg trytophan, equivalent to 12 mg niacin; thus, the niacin equivalent of this diet is 25 mg.

NUTRITION IN FOOD PRODUCTION
UNIT I

CLASS ASSIGNMENT SHEET #4--RECOMMEND DAILY SERVINGS FROM THE DAILY FOOD GUIDE FOR PERSONS IN VARIOUS LIFE CYCLE STAGES

NAME ______________________________ SCORE ____________

Using the information given in Information Sheet, Sections V, VI, and VII, complete the following chart for the amounts of each food group needed *daily* by each person specified.

(NOTE: In general, use smaller servings for children under nine years old, unless they are experiencing growth spurts. Teenagers, especially during adolescent growth spurts, need more and larger-than-average servings. Pregnant and nursing women need more servings.)

EXAMPLE: Three-year-olds will need 12 to 18 ounces of milk daily.

	3-year old	Teenage boy	Adult	Pregnant or nursing woman
Milk/Dairy Group--*Give total amount in ounces for daily requirement* *Children:* three or more glasses *Adolescents:* four or more glasses *Adults:* two or more glasses *Pregnant or nursing women:* four or more glasses	12 to 18 ounces			
Meat Group--*Give three examples and serving size of each to total the daily requirement* *Children:* 4 ounces daily *Adolescents:* 6 or more ounces *Adults:* 4 or more ounces *Pregnant or nursing women:* 6 or more ounces daily				
Fruit/Vegetable Group--*Give serving sizes in cups to total the daily requirement* *Children:* four or more servings *Adolescents:* four or more servings *Adults:* four or more servings *Pregnant or nursing women:* six or more servings				

CLASS ASSIGNMENT SHEET #4

	3-year old	Teenage boy	Adult	Pregnant or nursing woman
Bread/Cereal Group--*Give serving size and examples to meet daily requirement; include one cereal* *Children:* four or more servings *Adolescents:* four or more servings *Adults:* four or more servings *Pregnant or nursing women:* six or more servings				

NUTRITION IN FOOD PRODUCTION
UNIT I

CLASS ASSIGNMENT SHEET #5--IDENTIFY COMMON PRACTICES OF PREPARATION AND SERVICE THAT AFFECT NUTRIENT CONTENT OF FOODS

NAME ______________________________ SCORE __________

The nutrient content of foods can be affected by many things, such as handling, storing, preparing, and cooking. Understanding these principles will help preserve the nutrients in food. Retaining food value is one of your most important jobs.

In the following list of food items, circle the one in each pair that would have the most nutrients, and tell why you chose that particular one.

EXAMPLE: Mashed potatoes
[✓ Baked potatoes (unpeeled)]

Why? Baked potatoes that are unpeeled will contain more vitamin C than the ones that are peeled, chopped, and mashed because vitamin C is lost in air, and in water by heating.

A. Milk stored in carton

Milk stored in covered clear glass container

Why? ______________________________

____

____

B. Waldorf salad made with peeled apples

Waldorf salad made with unpeeled apples

Why? ______________________________

____

____

C. Rice cooked in specified amount of water but rinsed before serving

Rice cooked in specified amount of water but unrinsed

Why? ______________________________

____

____

CLASS ASSIGNMENT SHEET #5

D. Orange juice served immediately after mixing

Orange juice mixed the night before and refrigerated uncovered

Why? ____

____

____

E. Stew cooked with water

Stew cooked with liquids from canned vegetables

Why? ____

____

____

F. Gelatin made from fruit juices saved from canned fruits

Gelatin made from water

Why? ____

____

____

G. Broccoli cooked by directions on package

Broccoli cooked by directions on package with addition of baking soda

Why? ____

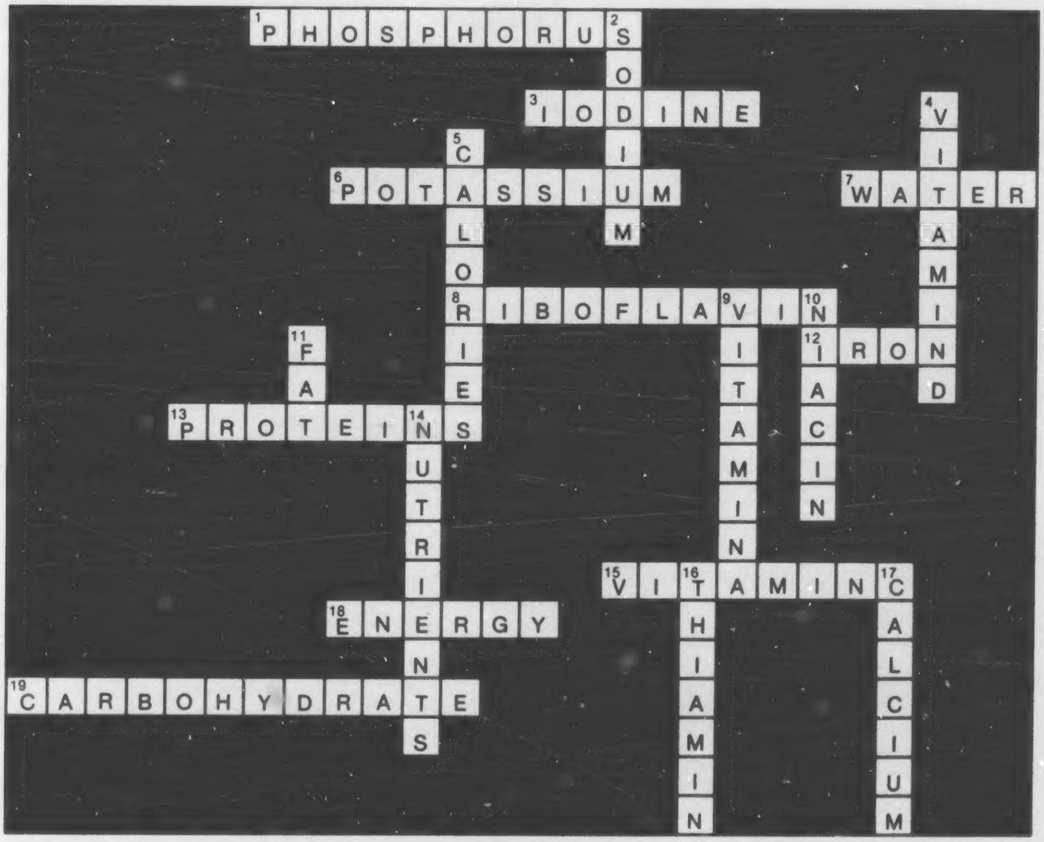
____

____

NUTRITION IN FOOD PRODUCTION
UNIT I

ANSWERS TO CLASS ASSIGNMENT SHEETS

Class Assignment Sheet #1


1 PHOSPHORUS
2 SODIUM
3 IODINE
4 VITAMIN D
5 CALORIES
6 POTASSIUM
7 WATER
8 RIBOFLAVIN
9 VITAMIN
10 NIACIN
11 FAT
12 IRON
13 PROTEINS
14 NUTRIENTS
15 VITAMIN C
16 THIAMIN
17 CALCIUM
18 ENERGY
19 CARBOHYDRATE

ANSWERS TO CLASS ASSIGNMENT SHEETS

Class Assignment Sheet #2

A.	5	G.	7, 8
B.	1	H.	1
C.	4	I.	11
D.	9	J.	2
E.	6	K.	8
F.	3	L.	10

Class Assignment Sheet #3

MILK/DAIRY--A, C, D, E, F, H, I, J

MEAT--B, C, E, F, G, I, J

FRUIT/VEGETABLE--A, B, C, D, F, G, H, I, J

BREAD/CEREAL--B, C, D, E, F, G, H, I

ANSWERS TO CLASS ASSIGNMENT SHEETS

Class Assignment Sheet #4

	3-year-old	Teenage boy	Adult	Pregnant or nursing woman
Milk/Dairy Group *Children:* three or more glasses *Adolescents:* four or more glasses *Adults:* two or more glasses *Pregnant or nursing women:* four or more glasses	12-18 oz daily	1 qt (32 oz)	2 c (8 oz each)	1 qt or more
Meat Group *Children:* 4 ounces daily *Adolescents:* 6 or more ounces *Adults:* 4 or more ounces *Pregnant or nursing women:* 6 or more ounces	1 egg 2 oz meat 1 T peanut butter	1-2 eggs 3 oz meat 4 T peanut butter	1 egg 1-2 oz meat 2-3 oz fish	1 egg 2-3 oz fish 3-4 oz poultry
Fruit/Vegetable Group *Children:* four or more servings *Adolescents:* four or more serv. *Adults:* four or more servings *Pregnant or nursing women:* six or more servings	4 servings-- 1/4 - 1/3 c each	4 or more servings 1/2 c each (NOTE: 1 cup raw vegetable)	4 or more servings 1/2 c each	6 or more servings 1/2 c each
Bread/Cereal Group *Children:* four or more servings *Adolescents:* four or more serv. *Adults:* four or more servings *Pregnant or nursing women:* six or more servings	4 small servings-- 1/4 c cooked cereal, 3 half slices bread	3/4-1 c dry cereal 4 or more slices of enriched bread	1/2 c cooked cereal 3 slices of bread	3/4-1 c dry cereal 5 or more slices enriched bread

ANSWERS TO CLASS ASSIGNMENT SHEETS

Class Assignment Sheet #5

A. Milk stored in carton; riboflavin is destroyed by visible light

B. Waldorf salad made with unpeeled apples; some vitamins are contained in skin of the apple

C. Rice cooked in specified amount of water but unrinsed; water-soluble vitamins are contained in cooking water; washing rice rinses vitamins down the drain

D. Orange juice served immediately after mixing; vitamin C is easily lost in air

E. Stew cooked with liquids from canned vegetables; water-soluble vitamins are contained in cooking water, as well as in canning liquids

F. Gelatin made from fruit juices saved from canned fruits; water-soluble vitamins are contained in canning liquids

G. Broccoli cooked by directions on package; baking soda is alkali and destroys vitamins

FPW - 35-A

NUTRITION IN FOOD PRODUCTION
UNIT I

CLINICAL ASSIGNMENT SHEET #1--MAKE RECOMMENDATIONS TO IMPROVE NUTRITIONAL ADEQUACY OF A WEEK'S MENU

NAME ______________________________ SCORE ____________

The Food Service Department's purpose is to provide good nutrition for patients and employees. To ensure adequate servings of the Daily Food Guide groups, menus are planned in advance and checked for nutritional adequacy.

PART I

Use a week's menu from your facility and the following checklist to evaluate the menu for nutritional adequacy. Put the number of servings in each nutrient category in the proper box. For vitamin C sources, you may have half servings to record.

(NOTE: The initials at the top of the right-hand column stand for the days of the week.)

NUTRIENT PLANNING CHECKLIST

S	M	T	W	T	F	S	Total

Fruit/Vegetable

Dark green or deep yellow vegetable or fruit or equivalent sources (liver) of vitamin A--Four or more servings per week

One serving is equivalent to 1/2 cup broccoli, chard, collards, cress, kale, spinach, turnip greens or other dark green leaves, carrots, pumpkin, sweet potato, winter squash, five apricot halves, or 1/2 medium cantaloupe.

S	M	T	W	T	F	S	Total

Citrus fruit or equivalent sources of vitamin C--One serving per day

(CAUTION: Vitamin C cannot be stored; it must be in diet every day.)

One serving is equivalent to 1/2 grapefruit, 1 medium orange, 1/2 cantaloupe, 1/2 cup strawberries, or 1/2 cup orange, grapefruit, or blended orange and grapefruit juice.

Half serving is equivalent to 1 wedge honeydew, 1 tangerine or 1/2 cup tangerine juice, 1/2 cup tomato juice or cooked tomato, 1 medium raw tomato, 1/2 cup broccoli, brussel sprouts, raw cabbage, collards, kale, mustard greens, spinach, or turnip greens.

CLINICAL ASSIGNMENT SHEET #1

Potato and other vegetables and fruits--Two to three servings daily to make a total of four servings with the above fruits and vegetables; should be distributed throughout the three meals

S	M	T	W	T	F	S	Total

> One serving is equivalent to 1/2 cup of vegetable or fruit, or a usual serving such as one medium apple, banana, peach, or potato.

Milk/Dairy

S	M	T	W	T	F	S	Total

Whole, skim, buttermilk or equivalent--Two 8-ounce cups daily for adults, 4 cups daily for children

> 1/2 cup is equivalent to 1/4 cup undiluted evaporated milk, 2 tablespoons non-fat dry milk, 1 thick slice cheddar cheese, 1/2 cup custard or milk pudding, 1 serving cream soup made with milk, 1 serving milk used on cereal.
>
> 1 cup milk is equivalent in calcium to 1 1/2 cups ice cream, 2-inch cube of cheese, or 1 1/3 cups cottage cheese
>
> (NOTE: If serving of cheese is being counted as a milk equivalent, it should not also be counted as a meat equivalent.)

Meat and Other Protein Foods

S	M	T	W	T	F	S	Total

Meat, poultry, fish, or protein equivalent--5 ounces (cooked weight) per day used in the dinner and supper

> 1 ounce is equivalent to 1 ounce of lean beef, veal, lamb, pork, poultry, fish, sea food, or variety meats such as liver, heart, or kidney, 1 wiener, 1 thick slice luncheon meat, 1 thick slice of cheese, 1/4 cup cottage cheese, 1/2 cup dried beans or dried peas, 2 tablespoons peanut butter.

Eggs--Four or more per week

S	M	T	W	T	F	S	Total

Bread/Cereal

S	M	T	W	T	F	S	Total

Bread and cereals, whole grain or enriched--Four or more servings per day

> 1 serving is equivalent to 1 slice of bread, 1 roll, muffin, or biscuit, 1 ounce ready-to-eat cereal, 1/2 to 3/4 cup cooked cereal, cornmeal, grits, rice, macaroni, noodles, or spaghetti.

CLINICAL ASSIGNMENT SHEET #1

Other Foods

S	M	T	W	T	F	S	Total

Butter or fortified margarine--3 or more
teaspoons per day used as a spread or in cooking

PART II

A. Was the menu found to be lacking in any of the groups from the Daily Food Guide?

Yes _____ No _____

If so, please list.

S ____________________

M ____________________

T ____________________

W ____________________

T ____________________

F ____________________

S ____________________

B. If you found any inadequacies, make recommendations to improve the menu.

____

____

____

____

____

FPW - 39-A

NUTRITION IN FOOD PRODUCTION
UNIT I

CLINICAL ASSIGNMENT SHEET #2--DISTINGUISH AMONG FOODS TO MAKE MENU SUBSTITUTIONS

NAME ______________________________ SCORE ____________

Menus are planned in advance and checked for adequate nutrients. When substitutions are necessary in the menu, be certain to choose a food with similar nutritional value. To substitute an item, determine if the original food choice on the menu was a good source of vitamin C or A. If so, substitute a food that is also a good source of the same vitamin.

Use the Nutrient Planning Checklist from Clinical Assignment Sheet #1 to select the *best* substitute for the following items that were listed on the menu but are not available. Circle your answers.

Foods on Menu That Are Not Available	**Substitute Foods That Are Available**
A. Broccoli	English peas Carrots Black-eyed peas
B. Orange juice	Tomato juice Grape juice Apple juice
C. Tomato	Celery Green beans Cabbage
D. Egg	Cheese Cereal Bacon
E. Sweet potato	White potato Winter squash Rice
F. Spinach	Asparagus Lima beans Broccoli
G. Cantaloupe	Peach Orange Apple

NUTRITION IN FOOD PRODUCTION
UNIT I

ANSWERS TO CLINICAL ASSIGNMENT SHEETS

Clinical Assignment Sheet #1--Evaluated to the satisfaction of the clinical instructor

Clinical Assignment Sheet #2

A. Carrots

B. Tomato juice

C. Cabbage

D. Cheese

E. Winter squash

F. Broccoli

G. Orange

NUTRITION IN FOOD PRODUCTION
UNIT I

TEST

NAME ______________________________ SCORE ______________

1. Match terms associated with nutrition in food production to their correct definitions. Write the correct numbers in the blanks.

_____a. To add nutrients that either do not occur naturally in food or occur in relatively small amounts

_____b. Eight well-defined B vitamins and several related compounds; known collectively as "family" of B vitamins

_____c. Vitamins that can be dissolved in fat; can be stored in body

_____d. Chemical compounds that occur in minute quantities in foods; necessary for life and growth

_____e. Unit of measurement of energy that food provides body

_____f. Food sources of protein that promote both well-being and growth; derived from animal sources

_____g. To replace nutrients lost in processing; to improve nutritional quality of food

_____h. Chemical compounds that give nourishment to body

_____i. A good source of vitamin C

_____j. Key nutrients needed by body

_____k. Vitamins that can be dissolved in water; cannot be stored in body

_____l. Food sources of protein that alone cannot promote well-being nor support growth; derived from plant sources

_____m. Plant carbohydrate that is not digested by humans; also known as *bulk, roughage, residue, cellulose*

1. Leader nutrients
2. B-complex vitamins
3. Vitamins
4. Citrus fruit
5. Water-soluble vitamins
6. Fat-soluble vitamins
7. Complete protein
8. Incomplete protein
9. Fortify
10. Enrich
11. Fiber
12. Calorie
13. Nutrients

TEST

2. Identify primary functions of leader nutrients. Write the correct names in the blanks.

Proteins
Carbohydrates
Fats
Calcium
Phosphorus
Iron
Iodine
Sodium
Potassium
Vitamin A
Thiamin (vitamin B_1)
Riboflavin (vitamin B_2)
Niacin (vitamin B_3)
Vitamin C
Vitamin D
Water

______________ a. Mineral that helps body use energy efficiently

______________ b. Vitamin that promotes healthy skin around mouth and eyes

______________ c. Build and repair body tissues and supply energy

______________ d. Vitamin that helps body resist infections; promotes healing; is cement that connects cells of body

______________ e. Mineral that builds strong teeth and bones

______________ f. Mineral that helps build healthy blood and aids cells in using oxygen

______________ g. Supply energy and spare proteins for tissue building and repair

______________ h. Vitamin that helps body absorb calcium

______________ i. Vitamin that promotes healthy nerves; aids normal digestion

______________ j. Mineral that helps maintain water balance of body; found in fluids outside cells

______________ k. Mineral that works with calcium to build teeth and bones

______________ l. Carries nutrients to body cells and waste products away from cells

______________ m. Vitamin that keeps skin healthy; aids vision in dim light

______________ n. Mineral that helps maintain water balance of body; found in fluids inside cells

______________ o. Vitamin that promotes healthy nerves and good appetite

______________ p. Supply and store energy in the body

TEST

3. Match food sources to correct leader nutrients. Write the correct numbers in the blanks. Answers may be used more than once.

_____ a. Salt, processed foods

_____ b. Fortified milk, eggs

_____ c. Citrus fruits, tomatoes

_____ d. Meats, whole grain or enriched breads or cereals

_____ e. Beverages, soups, gelatin

_____ f. Meats, bananas, oranges, dried fruits

_____ g. Milk, cheese, eggs

_____ h. Iodized salt, saltwater fish

_____ i. Liver, deep yellow or dark green fruits and vegetables

_____ j. Meats, eggs, milk, cheese, peanut butter, dried beans, peas

_____ k. Butter, margarine, cream, cooking oil, eggs, meats, whole milk

_____ l. Meats, whole grain or enriched breads or cereals, milk

_____ m. Milk and dairy products, except butter

_____ n. Liver, egg yolk, meats

_____ o. Sugar, jelly, honey, fruit, cereal, grains, vegetables

1. Niacin (vitamin B_3)
2. Riboflavin (vitamin B_2)
3. Thiamin (vitamin B_1)
4. Vitamin A
5. Vitamin C
6. Vitamin D
7. Potassium
8. Sodium
9. Iron
10. Iodine
11. Calcium
12. Phosphorus
13. Proteins
14. Carbohydrates
15. Fats
16. Water

4. List leader nutrients contributed to the diet by each of the Daily Food Guide groups.

a. Milk/dairy group

1) ____________________

2) ____________________

3) ____________________

4) ____________________

TEST

b. Meat group

1) ____________________

2) ____________________

3) ____________________

4) ____________________

c. Fruit/vegetable group

1) ____________________

2) ____________________

3) ____________________

4) ____________________

d. Bread/cereal group

1) ____________________

2) ____________________

3) ____________________

4) ____________________

5. Describe two dietary needs for each of the life cycle stages listed below.

a. Pregnant and nursing women

1) ____________________

2) ____________________

b. Infants

1) ____________________

2) ____________________

c. Children

1) ____________________

2) ____________________

TEST

d. Adolescents

1) ______________________________

2) ______________________________

e. Adults

1) ______________________________

2) ______________________________

f. Senior citizens

1) ______________________________

2) ______________________________

6. State the number of servings from each of the Daily Food Guide groups for a healthy adult. Write your answers in the spaces provided.

a. Milk/dairy group--_____ serving(s) daily

b. Meat group--_____ serving(s) daily

c. Fruit/vegetable group--_____ or more serving(s) daily

1) Include _____ good source(s) of vitamin C every day

2) Include a good source of vitamin A at least _____ time(s) per week

d. Bread/cereal group--_____ serving(s) daily

7. State adjustments in number and size of servings from each of the Daily Food Guide groups for life cycle stages.

a. Milk/dairy group

1) Children--_____ or more servings daily

2) Adolescents--_____ or more 8-ounce glasses daily

3) Pregnant or nursing women--_____ or more 8-ounce glasses daily

b. Meat group

1) Children--_____ ounces daily

2) Adolescents--_____ or more ounces daily

3) Pregnant or nursing women--_____ or more ounces daily

TEST

c. Fruit/vegetable group

1) Children--______ or more 1/2-cup servings
2) Adolescents--______ or more 1/2-cup servings
3) Pregnant or nursing women--______ or more 1/2-cup servings

d. Bread/cereal group

1) Children--______ or more servings
2) Adolescents--______ or more servings
3) Pregnant or nursing women--______ or more servings

8. Describe four factors each in food storage and preparation that prevent nutrient loss.

a. Storage

1) ____
2) ____
3) ____
4) ____

b. Preparation

1) ____
2) ____
3) ____
4) ____

9. Select from the following list tips to preserve nutrients in foods. Write an "X" in the blank before each correct answer.

______a. Chop or tear outer green leaves of lettuce and add to salads or cook in stews

______b. Ripen tomatoes at 60°F to 70°F

______c. Wash rice thoroughly before cooking

______d. Use core of cabbage as well as outer leaves

______e. Include broccoli leaves in the diet

______f. Store salad greens in moisture-proof bags

______g. Discard broccoli leaves and use only stalks and buds

TEST

______h. Store canned vegetables in cool, dry storeroom

______i. Get the full nutritive value from meat by using the drippings and juices to save the water-soluble B vitamins

______j. Conserve the valuable nutrients of milk by keeping it cold, covered, and away from strong light

______k. Ripen tomatoes in the refrigerator

______l. Store fresh berries unwashed

______m. Serve the soft bones found in canned fish

______n. Avoid holding cooked vegetables for long periods of time

______o. Reheat leftover vegetables as quickly as possible

______p. Store milk in clean, clear glass containers

(NOTE: Test questions 10-14 list the assignment sheets. They are an important part of this test. If they have not been completed, check with your instructor.)

10. Select nutrients provided by the Daily Food Guide.
11. Recommend daily servings from the Daily Food Guide for persons in various life cycle stages.
12. Identify common practices of preparation and service that affect nutrient content of foods.
13. Make recommendations to improve nutritional adequacy of a week's menu.
14. Distinguish among foods to make menu substitutions.

NUTRITION IN FOOD PRODUCTION
UNIT I

ANSWERS TO TEST

(NOTE: It may be helpful to use your blank test to make a test key. The points designated in parentheses are intended to be guidelines and should be adapted to meet the needs of each teaching/learning situation. The point total for the entire test is 495. The point total for questions 1-9 is 235; the point total for questions 10-14 is 260.)

1. (26 points)

   a. 9
   b. 2
   c. 6
   d. 3
   e. 12
   f. 7
   g. 10
   h. 13
   i. 4
   j. 1
   k. 5
   l. 8
   m. 11

2. (32 points)

   a. Iodine
   b. Riboflavin (vitamin B_2)
   c. Proteins
   d. Vitamin C
   e. Calcium
   f. Iron
   g. Carbohydrates
   h. Vitamin D
   i. Niacin (vitamin B_3)
   j. Sodium
   k. Phosphorus
   l. Water
   m. Vitamin A
   n. Potassium
   o. Thiamin (vitamin B_1)
   p. Fats

3. (30 points)

   a. 8
   b. 6
   c. 5
   d. 3, 1
   e. 16
   f. 7
   g. 12
   h. 10, 8
   i. 4
   j. 13
   k. 15
   l. 2
   m. 11
   n. 9
   o. 14

ANSWERS TO TEST

4. (12 points)

Answer should include the following

a. Milk/dairy group

   1) Represents leading source of calcium
   2) Contains complete protein, carbohydrate, fat (unless skimmed milk)
   3) Provides phosphorus, riboflavin, vitamin D, other nutrients
   4) Contributes vitamin A, if whole milk or fortified

b. Meat group

   1) Represents best source of iron
   2) Supplies complete protein, fat
   3) Provides thiamin, riboflavin, niacin, other nutrients
   4) Contributes vitamin A, if organ meats are included

c. Fruit/vegetable group

   1) Supplies almost all vitamin C
   2) Supplies over one-half vitamin A
   3) Provides source of most vitamins and minerals
   4) Contributes fiber, carbohydrate, small amounts of incomplete protein

d. Bread/cereal group

   1) Supplies B-complex, especially the whole grain or enriched products
   2) Contains incomplete protein and carbohydrate
   3) Provides other nutrients such as iron in whole grain and enriched breads and cereals
   4) Supplies fiber if whole grain

ANSWERS TO TEST

5. (36 points)

Answer should include two needs from each of the following stages

a. Pregnant and nursing women

  1) Well-balanced diet
  2) Increased allowances for almost all essential nutrients at beginning of fourth month
  3) Increased protein, calcium, and iron
  4) Increased calorie intake

b. Infants

  1) High intake of iron
  2) High calorie intake in proportion to body weight

c. Children

  1) Enough calories for continuous weight gain
  2) Well-balanced diet
  3) High protein, vitamin, and mineral intake to promote growth and development

d. Adolescents

  1) Well-balanced diet
  2) Increased calories during adolescent growth spurt

e. Adults

  1) Well-balanced diet
  2) Decreased calorie intake

f. Senior citizens

  1) Well-balanced diet
  2) Decreased calorie intake

ANSWERS TO TEST

6 (12 points)

a. Two

b. Two

c. Four

  1) One

  2) Four

d. Four

7. (24 points)

a. 1) Three

  2) Four

  3) Four

b. 1) 4

  2) 6

  3) 6

c. 1) Four

  2) Four

  3) Six

d. 1) Four

  2) Four

  3) Six

8. (27 points)

Answer should include four of the following nutrient-loss preventive measures from each group.

a. Storage

  1) Store frozen foods at 0° F or below

  2) Rotate stock

ANSWERS TO TEST

3) Avoid undue exposure to oxygen or excessive heat in storeroom

4) Freeze foods in usable units

5) Store milk in containers that do not allow light to penetrate

b. Preparation

1) Use sharp knives and/or vegetable peelers

2) Cook vegetables in large pieces when possible to prevent loss of vitamin C

3) Cook frozen vegetables before thawing

4) Plan to serve many raw fruits and vegetables

5) Incorporate outer leaves of vegetables as often as possible

6) Pour juices as near serving time as possible

7) Avoid soaking vegetables for long periods of time

8) Avoid overcooking vegetables

9) Use as little water as possible in cooking vegetables

10) Cook vegetables as close to serving time as possible

11) Cock vegetables as quickly as possible

12) Cook and serve rice without rinsing or washing

13) Cook protein foods at low to moderate temperatures (275°F to 350°F)

14) Use liquids that vegetables are canned or cooked in for gravies, sauces, or soups

15) Avoid using baking soda when cooking vegetables

9. (36 points)

a, b, d, e, f, h, i, j, l, m, n, o

10. Evaluated to the satisfaction of the class instructor (40 points)

11. Evaluated to the satisfaction of the class instructor (50 points)

ANSWERS TO TEST

12. Evaluated to the satisfaction of the class instructor (35 points)

13. Evaluated to the satisfaction of the clinical instructor (100 points)

14. Evaluated to the satisfaction of the clinical instructor (35 points)

DIET THERAPY
UNIT II

UNIT OBJECTIVE

After completing this unit, the student should be able to use a diet manual as a reference, prepare appetizing and good-tasting food for modified diets, and distinguish between characteristics of the most frequently used diets in therapy. This knowledge will be shown by completing assignment sheets and unit test with a minimum score of 85 percent.

SPECIFIC OBJECTIVES

After completing this unit, the student should be able to

1. Match terms associated with diet therapy to their correct definitions.
2. State functions of a diet manual.
3. Match terms related to format of *Oklahoma Diet Manual* to their correct definitions.
4. State characteristics of the normal diet.
5. Distinguish between foods to use and foods to avoid for clear-liquid diets, full-liquid diets, and tube feedings.
6. Distinguish between foods to use and foods to avoid for surgical-soft, mechanical-soft, and pureed diets.
7. Distinguish between foods to use and foods to avoid for low-fiber, high-fiber, and as-tolerated diets.
8. Distinguish between characteristics of diabetic diet and reduction diet.
9. Select from a list diets that are modified in carbohydrates.
10. Select from a list correct statements about exchange lists for calorie-controlled diets.
11. Distinguish between characteristics of low-fat diets and low-cholesterol diets.
12. Distinguish between characteristics of low-protein diets and high-protein diets.
13. Distinguish between foods to use and foods to avoid for a 2-gram sodium diet.
14. Make substitutions for foods according to food exchange lists.
15. Prepare foods for a diet modified in consistency.

OBJECTIVE SHEET

16. Prepare foods required on an individualized diet.
17. Prepare foods for a diabetic diet.
18. Prepare foods for low-fat and low-cholesterol diets.
19. Prepare foods for a 2-gram sodium diet.

DIET THERAPY
UNIT II

SUGGESTED ACTIVITIES

I. Suggested activities

   A. Order materials to supplement unit.

      1. Manual — *Oklahoma Diet Manual.* Compiled by Oklahoma Dietetic Association, 1982. Available from OSUTI Bookstore, Student Center, Room 205, 900 N. Portland, Oklahoma City, Oklahoma 73107.

      2. Handbooks

         a. *Food Values of Portions Commonly Used,* Pennington and Church, J.B. Lippincott Company, 1980.

         b. *Nutritive Value of Foods,* Home and Garden Bulletin #72, United States Department of Agriculture, 1981. Available from U.S. Government Printing Office, Washington, D.C. 20402.

         (NOTE: Choose either Pennington and Church or Bulletin #72. Only one is necessary for completion of assignment sheets.)

   B. Provide students with objective sheet.

   C. Discuss unit and specific objectives.

   D. Provide students with information and assignment sheets.

   E. Discuss information and assignment sheets.

   F. Develop appropriate learning activities for special needs students.

   G. Compare several different diet manuals. Have samples available for class use.

   H. Discuss changes in diet therapy in past ten years.

      EXAMPLES: Sippy diet, ulcer diet, low fiber, high fiber

   I. Have students feed each other with a feeding syringe.

   J. Pass hat containing individual slips of paper with names of food on them. Have each student take one slip and give a suitable substitute for the food chosen.

   K. Obtain recipe books from pharmaceutical company representatives. Have students try a recipe and share results with class.

SUGGESTED ACTIVITIES

L. Have each student bring a diet manual. Spend several minutes finding different diets, food and drug interactions, and abbreviations to familiarize students with table of contents and index.

M. Demonstrate use of food composition tables.

N. Discuss importance of garnishing to make food more appetizing. With the students' help, make a list of garnishes and their possible uses; distribute list next class period.

(NOTE: Remember that juices and liquid foods can be garnished, too.)

O. Discuss possible foods to serve as between-meal feedings for hypoglycemic diet.

P. Discuss possible foods to serve as between-meal feedings for dumping-syndrome diet.

Q. Serve low-sodium crackers and salt-free margarine as snack to students. Discuss palatability.

R. Share case studies of special items prepared for individualized diets.

EXAMPLES: Explain situations involving salt-free pizza, low-fat gravy.

S. Have a variety of commercial food supplements that are suitable for clear-liquid and full-liquid diets available for students to taste.

T. Have students discuss "modification defined" and "treatment rationale" sections in diet manual for the modified diets in this unit.

U. Give test.

V. Reteach if necessary.

II. Instructional materials

A. Objective sheet

B. Suggested activities

C. Information sheet

D. Class assignment sheets

1. Class Assignment Sheet #1 — Complete a Crossword Puzzle of Terms Associated with Diet Therapy

2. Class Assignment Sheet #2 — Make Substitutions for Foods According to Food Exchange Lists

E. Answers to class assignment sheets

SUGGESTED ACTIVITIES

F. Clinical assignment sheets

   1. Clinical Assignment Sheet #1 — Prepare Foods for a Diet Modified in Consistency

   2. Clinical Assignment Sheet #2 — Prepare Foods Required on an Individualized Diet

   3. Clinical Assignment Sheet #3 — Prepare Foods for a Diabetic Diet

   4. Clinical Assignment Sheet #4 — Prepare Foods for Low-Fat and Low-Cholesterol Diets

   5. Clinical Assignment Sheet #5 — Prepare Foods for a 2-Gram Sodium Diet

G. Answers to clinical assignment sheets

H. Test

I. Answers to test

III. Unit references

A. American Dietetic Association. *Handbook of Clinical Dietetics.* New Haven, Connecticut: Yale University Press, 1981.

B. Livermon, Marjorie, ed. *Oklahoma Diet Manual.* Oklahoma City, Oklahoma: Oklahoma Dietetic Association, 1982.

C. Robinson, Corrine H. *Basic Nutrition and Diet Therapy,* 4th ed. New York: MacMillan Publishing Company, Inc., 1980.

D. Truitt, Debbie. *Foods and Nutrition.* Stillwater, Oklahoma: State Department of Vocational and Technical Education/Curriculum and Instructional Materials Center, 1980.

DIET THERAPY
UNIT II

INFORMATION SHEET

I. Terms and definitions (Class Assignment Sheet #1)

A. Ad lib — As one pleases

B. Arteriosclerosis — Thickening of inside wall of arteries by deposits of fat and cholesterol; commonly called *hardening of the arteries*

C. Colic — Colon spasm or distention that causes pain

D. Colitis — Inflammation of colon

E. Comatose — State of unconsciousness

F. Complex carbohydrate — Classification of large molecules of carbohydrate

(NOTE: A complex carbohydrate is composed of long chains of simple sugars.)

EXAMPLES: Starch, dietary fiber

G. Diabetes mellitus — Metabolic disease that affects the body's use of carbohydrate, fat, and protein because there is not enough production of effective insulin

H. Dietary fiber — Indigestible material found in plant foods

EXAMPLES: Seeds, skins, structural parts of plant foods

I. Dietetic food — Food prepared for specific use in modified diets

EXAMPLES: Low-sodium canned foods, fruits packed in water, unsweetened fruit juice

J. Diet therapy — Nutritional care to maintain health, to prevent illness, and to provide support and treatment during illness

K. Diverticular disease — Disease in which sacs or pockets, which can cause stagnation of feces and inflammation, form inside colon

L. Edema — Accumulation of fluid in body

M. Edentulous — Without teeth

N. Gastritis — Inflammation of stomach

INFORMATION SHEET

O. Gastrointestinal tract (GI tract) — Digestive system; includes stomach and intestines

P. Hyperlipoproteinemia or hyperlipidemia — Condition in which fat levels are elevated in blood: the fat (lipid) is transported in bloodstream in combination with protein substances (lipoproteins); results in premature arteriosclerosis

(NOTE: Five types of hyperlipoproteinemia have been identified. The most common types are IIa, which is characterized by too much cholesterol in the blood, and type IV, which is characterized by too many triglycerides in the blood.)

Q. Hypoglycemia — Group of symptoms, not a disease, associated with below-normal blood glucose levels; caused by a variety of diseases

(NOTE: Symptoms are tremors, sweating, anxiety, weakness, fatigue, and headache.)

R. Insulin — Hormone, produced by pancreas, that regulates body cells' ability to use blood sugar for energy

S. Modified diet — Diet based on normal diet and designed to meet the nutritional requirements of a given situation

(NOTE: A modified diet should be individualized to each patient.)

T. Polyunsaturated fat — Fat from vegetable oils that tends to lower the level of cholesterol in blood

EXAMPLES: Fat from corn, cottonseed, safflower, soybean, sunflower oils

(NOTE: Not all oils from vegetable sources are polyunsaturated. Coconut oil, a common ingredient in prepared foods, is a saturated fat.)

U. Residue — Material remaining after digestive process has been completed

V. Stroke or cerebrovascular accident (CVA) — Damage to a portion of brain as a result of blockage of an artery or hemorrhage from a ruptured artery in brain

W. Triglyceride — Chief source of fat energy in animal bodies; consists of glycerol and three fatty acids

II. Functions of a diet manual

A. Serves as a guide for current practice of diet therapy

(NOTE: A diet manual should be revised periodically, such as every three to five years.)

INFORMATION SHEET

B. Provides a collection of the most frequently prescribed diets

(NOTE: This allows continuity and uniformity of care among health care facilities.)

C. Assists medical staff in prescribing diets in accordance with established patterns

(NOTE: Diets should be modified only on order of physician.)

D. Identifies nutritional adequacy or deficits in diet

E. Provides patterns or guides for the dietary department in preparing meals for prescribed diets

F. Gives information to allow for accurate substitutions on modified diets according to established procedure

III. Format of *Oklahoma Diet Manual*

A. Table of contents — List that shows what topics are contained in book and in what order

(NOTE: Table of contents is commonly placed at front of volume.)

B. Index — Alphabetical list of topics and names in a book, giving page number where each subject is found

(NOTE: Index is commonly placed at end of volume.)

C. Modification defined — Brief description of major limitations and characteristics of a diet

(NOTE: This description identifies how the normal dietary pattern is modified to meet requirements of each prescribed diet.)

D. Treatment and rationale — Medical rationale for use of a particular dietary modification in terms of patient's needs

(NOTE: This section describes disease states that require this modification.)

E. Special considerations — Considerations for tailoring diet to meet individual needs

F. Adequacy of diet — Comparison of nutrients provided in a specific diet with the Recommended Dietary Allowances (RDA); notes any deficiencies to be expected from the modification

INFORMATION SHEET

G. Food lists — Names of foods to use and foods to avoid to meet prescribed diet

H. Suggested meal plan — List of possible combinations of foods to meet RDA

(NOTE: There is no suggested meal plan if the restrictions permit the normal dietary pattern.)

IV. Characteristics of the normal diet

(NOTE: A normal diet may also be referred to as a *regular* or *general diet*.)

A. Provides sufficient nutrients to meet the needs of healthy individuals in particular stage of life cycle

(NOTE: Diet meets Recommended Dietary Allowances.)

B. Serves as the foundation for all modified diets

C. Is intended for individuals who do not require any modification of food intake because of disease state

INFORMATION SHEET

V. Foods to use and foods to avoid for clear-liquid diets, full-liquid diets, and tube feedings

DIET	FOODS TO USE	FOODS TO AVOID
Clear liquid (NOTE: Serve ad lib or six feedings daily; diet contains approximately 400 to 600 calories; see diet manual for low-fiber commercial food supplements to use to increase nutrients.)	Apple juice Cranberry juice Clear broth Coffee Tea Clear gelatin Carbonated beverages Artificially flavored fruit drinks	Milk/dairy group Meat group Fruit/vegetable group Bread/cereal group
Full liquid (NOTE: Serve six feedings daily; diet contains foods that are liquid or that liquefy at body temperature; diet may be low in iron, thiamin, niacin; commercial food supplements may be used to increase nutrients.)	Vanilla pudding Ice cream or sherbet Vegetable and/or fruit juices Strained cream soup Cooked cereal Plain gelatin Coffee or tea Carbonated beverages	Meats Cheese Any food not liquid at body temperature
Tube feedings (NOTE: Use rigid sanitation procedures; *do not* keep food more than twenty-four hours; with careful planning, homemade tube feedings will meet RDA; see diet manual for quantities of commercial formulas to meet RDA.)	Blenderized and strained foods Milk Cream Powdered or cooked eggs Juices Cooked and strained cereal Commercial food supplements	Raw eggs Foods not easily tolerated, such as onions

INFORMATION SHEET

VI. Foods to use and foods to avoid for surgical-soft, mechanical-soft, and pureed diets (Clinical Assignment Sheet #1)

DIET	FOODS TO USE	FOODS TO AVOID
Surgical soft (soft) (NOTE: Diet follows normal dietary pattern; meets RDA.)	Milk/dairy group Tender or ground meat Cooked or canned vegetables and fruits Raw fruits and vegetables that are tolerated Bread/cereal group with exception of bran	Strongly flavored cheese Fried foods Nuts Bran cereal Corn Dried beans Highly seasoned foods or sauces
Mechanical soft (edentulous) (NOTE: Diet follows normal dietary pattern; meets RDA.)	Milk/dairy group Tender, ground, or blenderized meat Cooked, canned, frozen, chopped, or pureed vegetables and fruits Bread/cereal group	Any meat with tough connective tissue Whole nuts Fresh fruits and vegetables that are difficult to chew
Pureed (blended) (NOTE: Diet is modified in texture to allow intake through a straw or feeding syringe; diet follows normal dietary pattern and meets RDA.)	Milk/dairy group Cheese blenderized with macaroni and milk Blenderized meat group Blenderized fruit/vegetable group Blenderized bread/cereal group with milk	None

INFORMATION SHEET

VII. Foods to use and foods to avoid for low-fiber, high-fiber, and as-tolerated diets (Clinical Assignment Sheet #2)

DIET	FOODS TO USE	FOODS TO AVOID
Low fiber (low residue, diarrhea) (NOTE: Diet lessens irritation and stimulation effect of colon and reduces stool formation; meets RDA.)	Milk/dairy group Meat group Cooked or canned vegetables or fruits Refined bread or cereal	Over 2 cups of milk a day Nuts Dried beans Seeds, skins, and peels Whole grains Prunes because of laxative effect
High fiber (high residue) (NOTE: Diet includes dietary fiber; frequency and volume of stools are usually increased; meets RDA.)	Milk/dairy group Meat group Fruit/vegetable group with emphasis on fresh foods Whole grains Nuts Coconut Seeds Berries Increased fluids	Excessive use of unprocessed bran products Excessive use of refined carbohydrates such as simple sugars
Diet as tolerated (bland) (NOTE: Diet is dependent upon individual's food tolerances; should include small-volume, frequent feedings; meets RDA.)	Milk/dairy group* Meat group Fruit/vegetable group according to individual tolerances Bread/cereal group	Black and red pepper Chili powder Caffeine Cola beverages* Decaffeinated coffee* Coffee Tea Alcohol Drugs

*These foods stimulate gastric acid secretion.

INFORMATION SHEET

VIII. Characteristics of diabetic diet and reduction diet (Clinical Assignment Sheet #3)

DIABETIC DIET	REDUCTION DIET FOR WEIGHT CONTROL
Is prescribed and directed by physician (NOTE: Dietary treatment is divided into three classes: mild restriction or liberal diabetic, calorie-controlled, and individualized calculated diet.)	Is prescribed and directed by physician (NOTE: Rapid weight loss and "fad" diets can be dangerous; eating habits must change permanently to lose weight and keep it off.)
Is based on normal dietary pattern with controlled proportions of carbohydrate, fat, and protein	Is based on normal dietary pattern with total daily calories most important aspect
Requires regular spacing and timing of meals	Has flexible spacing and timing of meals
Provides nutritionally adequate diet	Provides nutritionally adequate diet
Maintains weight control (NOTE: Weight control is the most important objective for an individual with diabetes. Exercise is also a factor.)	Provides method for taking in fewer calories than are used, resulting in weight loss
Regulates food preparation techniques and serving sizes EXAMPLES: Diet includes no deep-fat-fried foods; servings are measured; meats are weighed after cooking.	Regulates food preparation techniques and serving sizes
Is based on food exchange lists to give variety to menu planning (NOTE: Needs of most persons with diabetes may be met without use of special "dietetic" foods.)	Is based on food exchange lists to give variety to menu planning
Maintains normal blood sugar levels	Promotes increased exercise to use up calories
Includes liberal amounts of complex carbohydrates but restricts simple sugars and saturated fats	

INFORMATION SHEET

IX. Diets that are modified in carbohydrates

A. Hypoglycemic diet

(NOTE: Diet is based on foods high in protein, low in carbohydrate. Daily food is divided into six feedings for steady supply of glucose into bloodstream throughout day.)

B. Dumping-syndrome diet

(NOTE: This diet is for patients with partial removal of the stomach. Based on foods high in protein and complex carbohydrates, the diet is divided into small, frequent meals. Omit fluids at mealtime; omit sugar and other concentrated simple carbohydrates.)

X. Exchange lists for calorie-controlled diets (Class Assignment Sheet #2)

(NOTE: Lists were developed by American Diabetes Association and American Dietetic Association to be used in any situation requiring calorie and food value control.)

A. Include groups of common foods that are approximately equal in protein, fat, and carbohydrate content

(NOTE: American Diabetes Association and American Dietetic Association lists should be supplemented by regional lists of ethnic and convenience foods popular in the area.)

B. Include six groups of foods

C. Give serving sizes for each food

D. Refer to food choices or servings as *food exchanges*

E. Allow exchange of foods within each group but not between food groups

F. Provide practical method of teaching food selection and meal planning

(NOTE: Many exchange lists will indicate foods that are lower in cholesterol and saturated fat.)

G. Promote dietary compliance by allowing flexibility and variety in meal planning while including foods from recommended groups

(NOTE: Meal plans can be individualized to suit patient's tastes, food preferences, and life-style.)

H. Encourage user to think of nutrients in terms of foods

INFORMATION SHEET

XI. Characteristics of low-fat diets and low-cholesterol diets (Clinical Assignment Sheet #4)

LOW-FAT DIET	**LOW-CHOLESTEROL DIET** *for IIa hyperlipoproteinemia*
Treats gallbladder disease, disorders of pancreas, and some malabsorption syndromes	Reduces dietary cholesterol to approximately 300 milligrams daily
Restricts total amount of fat allowed to three servings a day (NOTE: One serving of fat is equal to 1 teaspoon margarine or oil, or one slice bacon.)	Controls type and amount of fat allowed (NOTE: Diet emphasizes fish, chicken, very lean beef, polyunsaturated oils.)
Regulates food preparation techniques (NOTE: Avoid fried foods or foods seasoned with fat unless allowance is used.)	Regulates food preparation techniques (NOTE: Diet includes vegetable oil in food preparation.)
Allows servings from milk/dairy group if they contain 1 percent fat or less	Allows servings from milk/dairy group if they contain 1 percent fat or less
Allows lean cuts of meat, fish, poultry (NOTE: Trim all visible fat off before cooking.)	Allows lean cuts of meat, fish, poultry (NOTE: Diet restricts lean-meat servings to six to nine per day and includes 1 teaspoon polyunsaturated oil for each ounce of meat.)
Omits commercial bakery goods or mixes	Omits commercial bakery goods or mixes

INFORMATION SHEET

XII. Characteristics of low-protein diets and high-protein diets (Clinical Assignment Sheet #2)

LOW-PROTEIN DIET*	HIGH-PROTEIN DIET**
Is prescribed for patients with poor kidney function or severe liver disease (NOTE: Normally, the kidney excretes waste products of protein metabolism, such as urea, that are toxic in large amounts in the body.)	Is prescribed for patients in early stages of liver disease or with burns, cancer (NOTE: It is generally agreed that cancer patients with nutritionally balanced diets have a better chance for successful therapy.)
Includes at least 75 percent of the daily protein allowance as complete proteins EXAMPLES: Eggs, meat, fish, poultry, milk (NOTE: Complete proteins should be divided throughout the daily intake. If all amino acids are not available at one time, none of them are utilized.)	Includes between-meal protein feedings
Restricts sodium and potassium (NOTE: Sodium retention causes edema, and potassium retention can lead to rhythm disturbances of heart beat.)	May include commercial supplemental formulas
Provides sufficient calories to spare protein (NOTE: With limited protein, be certain there are sufficient carbohydrate and fat for body's calorie needs so that the amino acids will be used for tissue building and repair and not for energy.)	

*If diet has 40 grams or less of protein, supplementary vitamins are advisable as it is nutritionally inadequate in calcium, iron, B complex, and vitamin D.

**Diet contains 120 grams of protein.

INFORMATION SHEET

XIII. Foods to use and foods to avoid for a 2-gram sodium diet (Clinical Assignment Sheet #5)

2-GRAM SODIUM DIET*

Foods to Use	Foods to Avoid
Fresh meats Fresh fruits and vegetables (NOTE: Vegetables high in natural sodium are on the avoid list.) Fruit juices Herbs and spices EXAMPLES: Allspice Bay leaf Dry mustard Paprika	Table salt Commercially processed foods EXAMPLES: Frozen fish Frozen peas Frozen lima beans Canned soup Cured meats Cheese Chips Meat sauces Vegetables high in natural sodium EXAMPLES: Beets Carrots (NOTE: Animal foods contain more sodium than plant foods do. Meat servings are limited on 2-gram sodium diet.)

*Diet limits sodium intake to reduce fluid retention. Table salt is sodium chloride (NaCl) and contains 40 percent sodium.

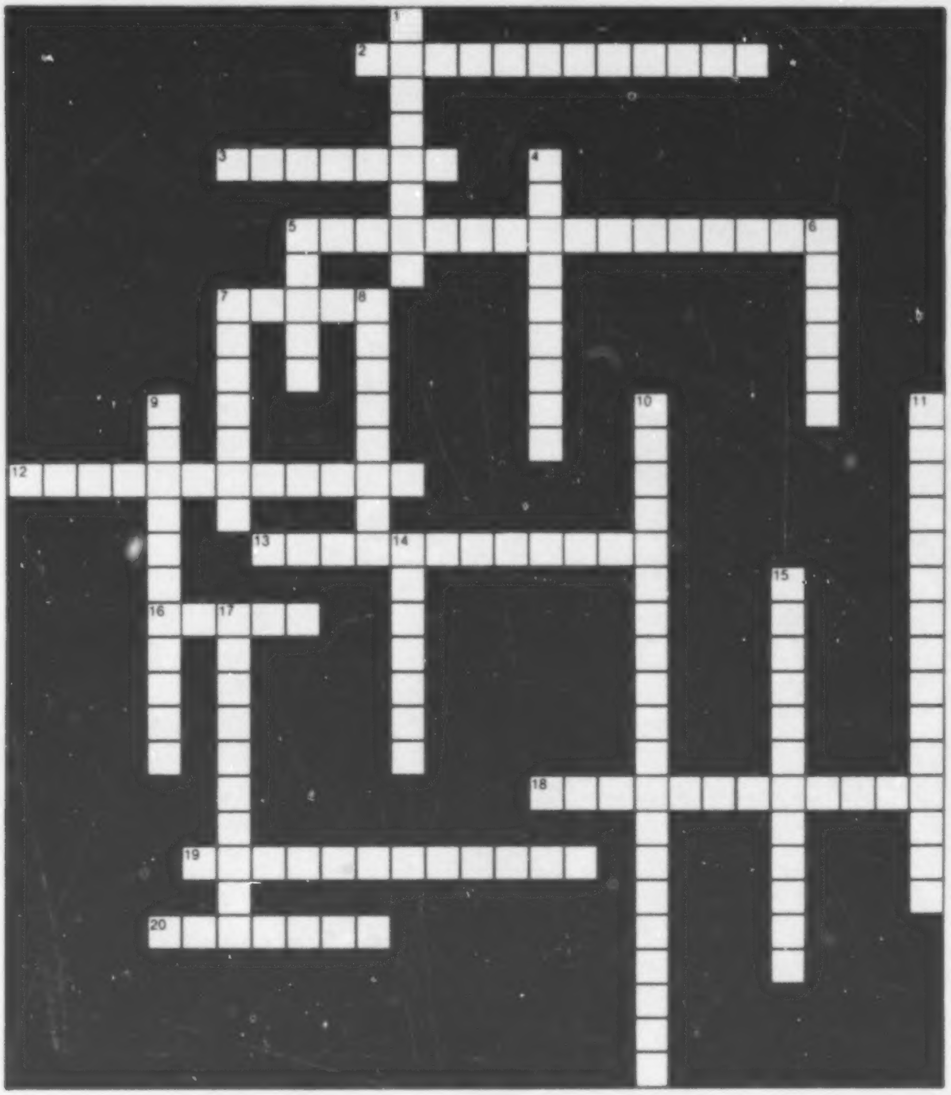
CAUTION: Scant 1/4 teaspoon salt equals 500 milligrams of sodium.

DIET THERAPY
UNIT II

CLASS ASSIGNMENT SHEET #1 — COMPLETE A CROSSWORD PUZZLE OF TERMS ASSOCIATED WITH DIET THERAPY

NAME ______________________________ SCORE ______________

To be an effective food production worker, you should understand the terms associated with diet therapy. Familiarize yourself with the vocabulary by completing the following crossword puzzle.


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20

CLASS ASSIGNMENT SHEET #1

ACROSS

2. Indigestible material found in plant foods (two words)
3. Classification of large molecules of carbohydrate
5. Thickening of inside wall of arteries by deposits of fat and cholesterol; commonly called *hardening of the arteries*
7. Colon spasm or distention that causes pain
12. Food prepared for specific use in modified diets (two words)
13. Disease in which sacs or pockets, which can cause stagnation of feces and inflammation, form inside colon
16. Accumulation of fluid in body
18. Group of symptoms, not a disease, associated with below-normal blood glucose levels; caused by a variety of diseases
19. Diet based on normal diet and designed to meet the nutritional requirements of a given situation (two words)
20. Hormone, produced by pancreas, that regulates body cells' ability to use blood sugar for energy

DOWN

1. ____________________ mellitus
4. Inflammation of stomach
5. As one pleases
6. Cerebrovascular accident (CVA)
7. Inflammation of colon
8. State of unconsciousness
9. Nutritional care to maintain health, to prevent illness, and to provide support and treatment during illness (two words)
10. Another word for hyperlipidemia
11. Fat from vegetable oils that tends to lower the level of cholesterol in blood
14. Material remaining after digestive process has been completed
15. Chief source of fat energy in animal bodies; consists of glycerol and three fatty acids
17. Without teeth

DIET THERAPY
UNIT II

CLASS ASSIGNMENT SHEET #2 — MAKE SUBSTITUTIONS FOR FOODS ACCORDING TO FOOD EXCHANGE LISTS

NAME ______________________________ SCORE ______________

Correct substitution of food for calorie-controlled diets is one of the competencies necessary for the food production worker.

(NOTE: Generally, an R.D., D.T., or D.A. should approve menu substitutions, but in absence of such approval, the cook needs to be prepared to make this decision.)

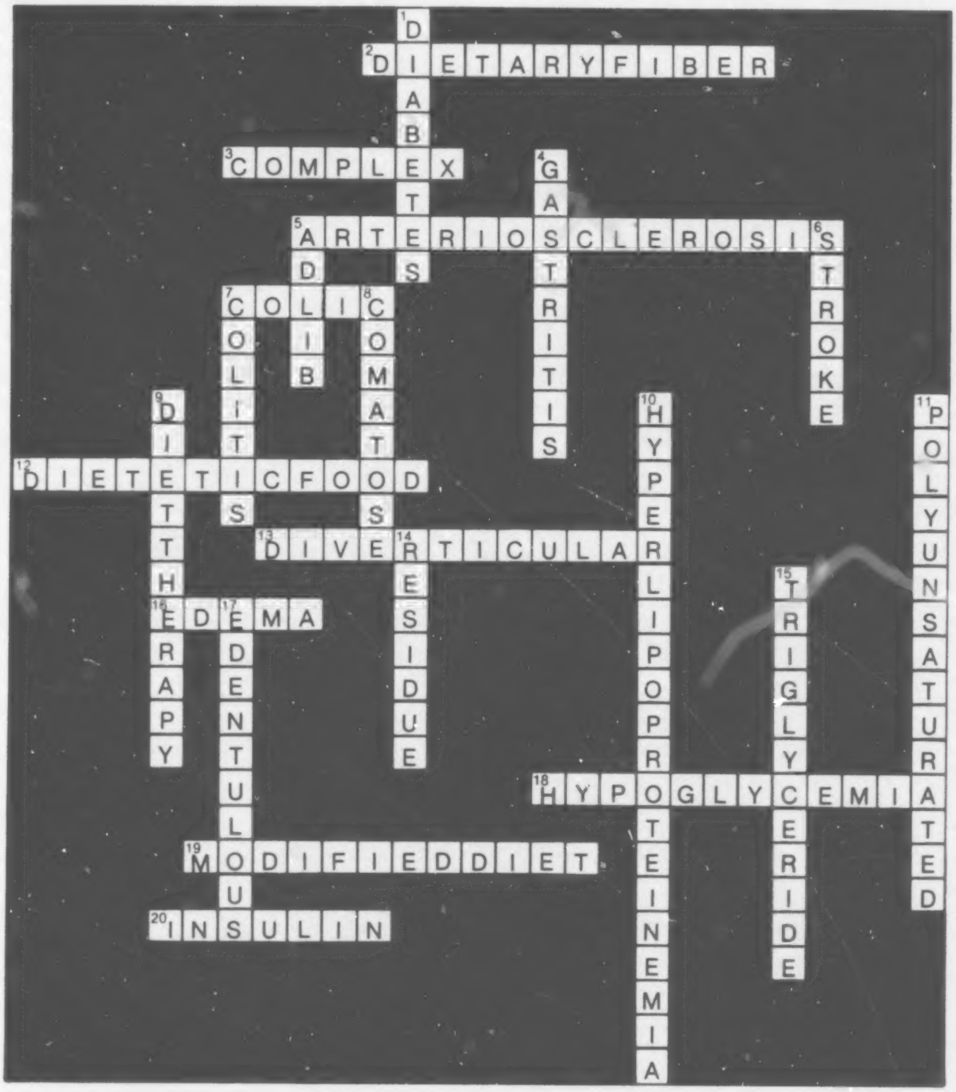
To substitute accurately, you must know how to classify foods according to similar nutrient content. Using the exchange lists as a reference, classify the following foods according to exchange lists, and choose a substitution for each food.

FOOD	EXCHANGE LIST	SUBSTITUTION
EXAMPLE: 1 cup skim milk	Milk Exchange	1 cup yogurt made from skim milk
1/2 cup mashed potatoes		
3/4 cup strawberries		
1/4 cup tuna		
Dill pickles		
1/2 cup spinach		
1/2 cup bran cereal		
1/2 cup tomato juice		
3 cups popcorn		
1 ounce cheese		
2 tablespoons sour cream		
1 egg		
2 pecans		
1/2 cup asparagus		
Lettuce		
1/2 cup macaroni		
1 ounce ground round		
1/2 cup orange juice		

DIET THERAPY
UNIT II

ANSWERS TO CLASS ASSIGNMENT SHEETS

Class Assignment Sheet #1


1 DIABETES
2 DIETARYFIBER
3 COMPLEX
4 GASTRITIS
5 ARTERIOSCLEROSIS
ADLIB
6 STROKE
7 COLIC
COLITIS
8 COMATOS
9 DIETTHERAPY
10 HYPERLIPOPROTEINEMIA
11 POLYUNSATURATED
12 DIETETICFOOD
13 DIVERTICULAR
14 RESIDUE
15 TRIGLYCERIDE
16 EDEMA
17 EDENTULOUS
18 HYPOGLYCEMIA
19 MODIFIEDDIET
20 INSULIN

Class Assignment Sheet #2 — Evaluated to the satisfaction of the class instructor

]

DIET THERAPY
UNIT II

CLINICAL ASSIGNMENT SHEET #1 — PREPARE FOODS FOR A DIET MODIFIED IN CONSISTENCY

NAME ______________________________ SCORE ______________

There are many reasons for modifying diets in consistency. A patient may need this type of modified diet before or after surgery. An edentulous patient, comatose patient, or someone with disease of the GI tract may also need a diet modified in consistency.

The normal diet is the basis for all modifications, and the goal is to make each "special" diet as appetizing and good tasting as the "general" diet. This goal requires time and effort from the food production workers, but improved nutrient intake by the patient is an adequate reward. Complete the following assignment as directed by your clinical instructor.

A. 1. Prepare soup for full-liquid diet.

2. Prepare commercial food supplements.

EXAMPLES: Instant Breakfast, Sustacal, Ensure, Meritene

3. Prepare blended meat, soup with blended meat and blended vegetables added, and blended vegetables for pureed diet.

4. Prepare commercial baby food for pureed diet.

B. 1. Taste all food prepared.

2. Record your reaction to each food prepared

____

____

____

____

____

____

3. Try commercial food supplements served under various conditions. Record your reaction.

Room temperature ______________________________

Chilled ______________________________

Served over ice ______________________________

Frozen ______________________________

Served in can ______________________________

Served in glass ______________________________

CLINICAL ASSIGNMENT SHEET #1

4. Compare the taste of blenderized regular food and the taste of commercially prepared baby food. Which do you prefer? ______________________

   Why? ______________________

   Which do you think patients on pureed diet would prefer? ______________________

   Why? ______________________

Comments:

DIET THERAPY
UNIT II

CLINICAL ASSIGNMENT SHEET #2 — PREPARE FOODS REQUIRED ON AN INDIVIDUALIZED DIET

NAME ______________________ SCORE __________

Patients who have feeding problems are frequently put on *diet as tolerated.* This is also the preferred diet order for patients with ulcers, since food tolerances vary among individuals. Cancer patients and other very ill patients will lose their appetites and/or experience changes in taste sensation. It may be necessary to fix something special for these patients to encourage better intake. It is important to individualize the diet to suit patients' food preferences and tolerances. Complete the following assignments as directed by your clinical instructor.

PART I

A. 1. As assigned by your clinical instructor, visit a patient on as-tolerated diet.

2. List foods the patient can tolerate. List foods the patient cannot tolerate.

B. With the assistance of your clinical instructor, individualize a meal pattern for this patient, using food tolerances and information in the *Oklahoma Diet Manual* for *diet as tolerated.* Record what foods you plan to serve. After your clinical instructor approves your plan, prepare and serve the foods to the patient.

(NOTE: Remember to include small, frequent feedings.)

CLINICAL ASSIGNMENT SHEET #2

C. Was it necessary to prepare any "special" foods for the patient? If so, revisit the patient and see if the patient enjoyed them. Record your comments.

PART II

A. 1. As assigned by your clinical instructor, visit a cancer patient or patient on a high-protein diet.

2.

List foods the patient can tolerate.	List foods the patient cannot tolerate.

B. With the assistance of your clinical instructor, individualize a meal pattern for this patient, using food tolerances and information in the *Oklahoma Diet Manual* for high-protein diet. Record what foods you served. After your clinical instructor approves your plan, prepare and serve the foods to the patient.

(NOTE: Remember to include protein foods between meals.)

C. Was it necessary to prepare any "special" foods for the patient? If so, revisit the patient and see if the patient enjoyed them. Record your comments.

DIET THERAPY
UNIT II

CLINICAL ASSIGNMENT SHEET #3 — PREPARE FOODS FOR A DIABETIC DIET

NAME ______________________________ SCORE ______________

Adherence to the diet prescribed is one of the most important factors in the treatment of diabetes mellitus. The adjustment to a controlled diet is made more easily if the patient is served appetizing, good-tasting food. Servings must be measured or weighed to stay within the restrictions.

PART I

Prepare and taste food for a diabetic diet as assigned by your clinical instructor.

A. 1. Prepare meat, starchy vegetable, vegetable, salad, and allowed fruit for a person with diabetes.

2. List food preparation techniques used.

EXAMPLES: Baked meat, prepared fat-free vegetables

____

____

____

B. 1. Taste all food prepared.

(NOTE: Use proper tasting procedures.)

2. Using *Oklahoma Diet Manual*, add appropriate allowed seasoning.

EXAMPLES: Add sugar substitute, basil, thyme, bay leaf.

3. Taste foods seasoned with allowed seasonings, and compare taste with unseasoned food. Which would you prefer? Is it worth the extra effort?

____

PART II

Serve specific amounts of food on diabetic diets.

A. Serve approximate amount of food with serving spoon.

EXAMPLE: One serving of mashed potatoes

B. Using measuring cup, measure the amount of food you served.

(NOTE: One-half cup mashed potatoes is one serving for diabetic diet.)

CLINICAL ASSIGNMENT SHEET #3

C. How does the approximate amount of served food compare with the correct amount?

____

D. Why is accuracy important on a diabetic diet? ______________________

____

____

E. Serve approximate amount of meat with serving spoon.

EXAMPLE: Diabetic diet order reads 3 ounces of meat. Estimate 3 ounces of meat and serve on plate.

F. Now weigh the amount of meat that you served. How much does it weigh? ________

____

How many calories does the difference between the approximate amount and the weighed amount of meat represent? ______________________

____

G. Do you weigh each serving of meat for the calculated diets? ______________

If your answer is no, do you see the importance of weighing? ______________

Discuss this with your dietitian.

PART III

Make correct substitutions on diabetic diets.

On the following form, write a planned diabetic menu from your facility for lunch and supper by listing the foods in the "menu item" column. Using the *Oklahoma Diet Manual* or food exchange lists, make correct substitutions for each item. Write each substitution in the "substitution" column.

EXAMPLE:	**MENU ITEM**	**SUBSTITUTION**
	3 ounces baked chicken	3 ounces water-packed tuna
	1/2 cup mashed potato	1/3 cup corn
	1/2 cup green beans	1/2 cup broccoli
	1/2 cup unsweetened fruit cocktail	1 small apple

CLINICAL ASSIGNMENT SHEET #3

MENU ITEM **SUBSTITUTION**

LUNCH

SUPPER

Comments:

DIET THERAPY
UNIT II

CLINICAL ASSIGNMENT SHEET #4 — PREPARE FOODS FOR LOW-FAT AND LOW-CHOLESTEROL DIETS

NAME ________________________ SCORE ____________

The low-fat diet and the low-cholesterol diet are easily confused. They both limit fat, require lean meats, and regulate food preparation techniques. To distinguish the differences between the two diets, prepare food for both low-fat and low-cholesterol diets.

PART I

A. 1. Prepare meat, starchy vegetable, vegetable, salad, and dessert for low-fat diet.

2. List food preparation techniques used.

EXAMPLES: Baked lean meat, prepared fat-free vegetables

B. 1. Prepare meat, starchy vegetable, vegetable, salad, and dessert for low-cholesterol diet.

2. List food preparation techniques used.

EXAMPLE: Marinated lean meat in oil, salad dressing with oil

C. 1. Compare the two methods of preparation. How did they differ?

2. In what ways were they similar?

CLINICAL ASSIGNMENT SHEET #4

PART II

A. Taste all food prepared.

B. List ways to make low-fat food more appealing and palatable.

C. List ways to make low-cholesterol food more appealing and palatable.

Comments:

DIET THERAPY
UNIT II

CLINICAL ASSIGNMENT SHEET #5 — PREPARE FOODS FOR A 2-GRAM SODIUM DIET

NAME ____ SCORE ________________

Sodium is an important mineral in our body. The healthy adult body requires approximately 500 milligrams of sodium in the daily diet, but estimated intake in America is from 3,000 to 8,000 milligrams. If a typical diet, based on the Daily Food Guide, were prepared without salt or other sodium-containing compounds, it would furnish about 500 milligrams of sodium. Salt is an acquired taste, and most of us use too much salt. Patients on low-sodium diets complain of "flat, tasteless food." You must be very creative with other seasonings to produce a palatable low-sodium product. Use allowed seasonings listed in the *Oklahoma Diet Manual* to improve flavor of food. Keep a record of what seasoning enhances each food. Remember, the food you prepare and serve does not increase the patient's nutrient intake unless it is eaten.

PART I

A. 1. Prepare food for a 2-gram sodium diet. Prepare meat, starchy vegetable, vegetable, salad, and dessert.

2. List food preparation techniques used.

EXAMPLES: Salt-free baked meat, prepared salt-free vegetables

____

____

____

B. 1. Prepare salt-free canned vegetable with nothing added. Taste. Record your impression.

____

2. Prepare salt-free canned vegetable with salt-free margarine added. Taste. Record your impression.

____

3. Prepare salt-free canned vegetable with salt-free margarine and allowed seasoning added. Taste. Record your impression.

____

CLINICAL ASSIGNMENT SHEET #5

PART II

A. Taste all food prepared. Try adding salt substitute as patient might. Taste again. Record your comments as you taste and evaluate each food.

B. List ways to make low-sodium food more palatable.

C. Share popular recipes and seasoning ideas with class.

Comments:

DIET THERAPY
UNIT II

ANSWERS TO CLINICAL ASSIGNMENT SHEETS

Clinical Assignment Sheet #1 — Evaluated to the satisfaction of the clinical instructor

Clinical Assignment Sheet #2 — Evaluated to the satisfaction of the clinical instructor

Clinical Assignment Sheet #3 — Evaluated to the satisfaction of the clinical instructor

Clinical Assignment Sheet #4 — Evaluated to the satisfaction of the clinical instructor

Clinical Assignment Sheet #5 — Evaluated to the satisfaction of the clinical instructor

DIET THERAPY
UNIT II

TEST

NAME ______________________________ SCORE ____________

1. Match terms associated with diet therapy to their correct definitions. Write the correct numbers in the blanks. Terms and definitions are continued on the following page.

______a. Material remaining after digestive process has been completed

______b. Food prepared for specific use in modified diets

______c. Thickening of inside wall of arteries by deposits of fat and cholesterol; commonly called *hardening of the arteries*

______d. Disease in which sacs or pockets, which can cause stagnation of feces and inflammation, form inside colon

______e. Without teeth

______f. Inflammation of stomach

______g. Colon spasm or distention that causes pain

______h. Accumulation of fluid in body

______i. Condition in which fat levels are elevated in blood: the fat (lipid) is transported in bloodstream in combination with protein substances (lipoproteins); results in premature arteriosclerosis

______j. Nutritional care to maintain health, to prevent illness, and to provide support and treatment during illness

______k. Metabolic disease that affects the body's use of carbohydrate, fat, and protein because there is not enough production of effective insulin

1. Diet therapy
2. Colic
3. Dietetic food
4. Arteriosclerosis
5. Edentulous
6. Diverticular disease
7. Diabetes mellitus
8. Gastritis
9. Residue
10. Hyperlipoproteinemia or hyperlipidemia
11. Edema

TEST

______l. Damage to a portion of brain as a result of blockage of an artery or hemorrhage from a ruptured artery in brain

______m. Diet based on normal diet and designed to meet the nutritional requirements of a given situation

______n. Classification of large molecules of carbohydrate

______o. Inflammation of colon

______p. Indigestible material found in plant foods

______q. As one pleases

______r. State of unconsciousness

______s. Fat from vegetable oils that tends to lower the level of cholesterol in blood

______t. Digestive system; includes stomach and intestines

______u. Group of symptoms, not a disease, associated with below-normal blood glucose levels; caused by a variety of diseases

______v. Chief source of fat energy in animal bodies; consists of glycerol and three fatty acids

______w. Hormone, produced by pancreas, that regulates body cells' ability to use blood sugar for energy

12. Stroke or cerebrovascular accident (CVA)
13. Modified diet
14. Hypoglycemia
15. Insulin
16. Dietary fiber
17. Triglyceride
18. Polyunsaturated fat
19. Comatose
20. Colitis
21. Ad lib
22. Gastrointestinal tract (GI tract)
23. Complex carbohydrate

2. State three functions of a diet manual.

a. ____

b. ____

c. ____

TEST

3. Match terms related to format of *Oklahoma Diet Manual* to their correct definitions. Write the correct numbers in the blanks.

______a. Medical rationale for use of a particular dietary modification in terms of patient's needs

______b. Alphabetical list of topics and names in a book, giving page number where each subject is found

______c. Considerations for tailoring diet to meet individual needs

______d. Names of foods to use and foods to avoid to meet prescribed diet

______e. Brief description of major limitations and characteristics of a diet

______f. List that shows what topics are contained in book and in what order

______g. Comparison of nutrients provided in a specific diet with the Recommended Dietary Allowances (RDA); notes any deficiencies to be expected from the modification

______h. List of possible combinations of foods to meet RDA

1. Special considerations
2. Index
3. Food lists
4. Treatment and rationale
5. Modification defined
6. Suggested meal plan
7. Adequacy of diet
8. Table of contents

4. State two characteristics of the normal diet.

a. ____

b. ____

5. Distinguish between foods to use and foods to avoid for clear-liquid diets, full-liquid diets, and tube feedings. Write a "U" in the blanks before foods to use in the specified diet and an "A" in the blanks before foods to avoid in the specified diet.

a. Clear liquid

______1) Bread/cereal group

______2) Artificially flavored fruit drinks

______3) Apple juice

______4) Meat group

TEST

______5) Clear broth

______6) Coffee

______7) Milk/dairy group

______8) Cranberry juice

______9) Carbonated beverages

______10) Fruit/vegetable group

______11) Clear gelatin

______12) Tea

b. Full liquid

______1) Cooked cereal

______2) Ice cream or sherbet

______3) Meats

______4) Vanilla pudding

______5) Vegetable and/or fruit juices

______6) Any food not liquid at body temperature

______7) Cheese

______8) Coffee or tea

______9) Carbonated beverages

______10) Strained cream soup

______11) Plain gelatin

c. Tube feedings

______1) Powdered or cooked eggs

______2) Raw eggs

______3) Commercial food supplements

______4) Blenderized and strained foods

TEST

______5) Milk

______6) Foods not easily tolerated, such as onions

______7) Cream

______8) Cooked and strained cereal

______9) Juices

6. Distinguish between foods to use and foods to avoid for surgical-soft, mechanical-soft, and pureed diets. Write a "U" in the blanks before foods to use in the specified diet and an "A" in the blanks before foods to avoid in the specified diet.

a. Surgical soft (soft)

______1) Strongly flavored cheese

______2) Corn

______3) Bread/cereal group with exception of bran

______4) Fried foods

______5) Cooked or canned vegetables and fruits

______6) Raw fruits and vegetables that are tolerated

______7) Bran cereal

______8) Nuts

______9) Milk/dairy group

______10) Highly seasoned foods or sauces

______11) Dried beans

______12) Tender or ground meat

b. Mechanical soft (edentulous)

______1) Cooked, canned, frozen, chopped, or pureed vegetables and fruits

______2) Any meat with tough connective tissue

______3) Tender, ground, or blenderized meat

______4) Bread/cereal group

TEST

______5) Whole nuts

______6) Milk/dairy group

______7) Fresh fruits and vegetables that are difficult to chew

c. Pureed (blended)

______1) Blenderized fruit/vegetable group

______2) Milk/dairy group

______3) Blenderized bread/cereal group with milk

______4) Cheese blenderized with macaroni and milk

______5) Blenderized meat group

7. Distinguish between foods to use and foods to avoid for low-fiber, high-fiber, and as-tolerated diets. Write a "U" in the blanks before foods to use in the specified diet and an "A" in the blanks before foods to avoid in the specified diet.

a. Low fiber (low residue, diarrhea)

______1) Prunes because of laxative effect

______2) Over 2 cups of milk a day

______3) Nuts

______4) Cooked or canned vegetables or fruits

______5) Milk/dairy group

______6) Refined bread or cereal

______7) Whole grains

______8) Dried beans

______9) Meat group

______10) Seeds, skins, and peels

TEST

b. High fiber (high residue)

______1) Fruit/vegetable group with emphasis on fresh foods

______2) Excessive use of refined carbohydrates such as simple sugars

______3) Milk/dairy group

______4) Meat group

______5) Berries

______6) Coconut

______7) Nuts

______8) Increased fluids

______9) Excessive use of unprocessed bran products

______10) Whole grains

______11) Seeds

c. Diet as tolerated (bland)

______1) Cola beverages

______2) Milk/dairy group

______3) Fruit/vegetable group according to individual tolerances

______4) Black and red pepper

______5) Alcohol

______6) Meat group

______7) Chili powder

______8) Caffeine

______9) Bread/cereal group

______10) Decaffeinated coffee

______11) Coffee

______12) Tea

______13) Drugs

TEST

8. Distinguish between characteristics of diabetic diet and reduction diet. Write an "X" in the column below "diabetic" if the characteristic listed is one for the diabetic diet. Write an "X" in the column below "reduction" if the characteristic listed is one for the reduction diet. Some characteristics may be appropriate for both diets.

DIABETIC	REDUCTION	CHARACTERISTIC
________	________	Regulates food preparation techniques and serving sizes
________	________	Maintains normal blood sugar levels
________	________	Is prescribed and directed by physician
________	________	Has flexible spacing and timing of meals
________	________	Provides nutritionally adequate diet
________	________	Includes liberal amounts of complex carbohydrates but restricts simple sugars and saturated fats
________	________	Is based on normal dietary pattern with controlled proportions of carbohydrate, fat, and protein
________	________	Requires regular spacing and timing of meals
________	________	Provides method for taking in fewer calories than are used, resulting in weight loss
________	________	Is based on food exchange lists to give variety to menu planning
________	________	Is based on normal dietary pattern with total daily calories most important aspect
________	________	Maintains weight control
________	________	Promotes increased exercise to use up calories

9. Select from the following list diets that are modified in carbohydrates. Write an "X" in the blank before each correct answer.

______a. Surgical-soft diet

______b. Dumping-syndrome diet

______c. Low-sodium diet

______d. Hypoglycemic diet

TEST

10. Select from the following list correct statements about exchange lists for calorie-controlled diets. Write an "X" in the blank before each correct answer.

______a. Restrict variety in meal planning

______b. Refer to food choices or servings as *food exchanges*

______c. Include six groups of food

______d. Provide practical method of teaching food selection and meal planning

______e. Allow exchange of foods between food groups

______f. Encourage user to think of nutrients in terms of foods

______g. Include nine groups of foods

______h. Promote dietary compliance by allowing flexibility and variety in meal planning while including foods from recommended groups

______i. Allow exchange of foods within each group but not between food groups

______j. Include groups of common foods that are approximately equal in protein, fat, and carbohydrate content

______k. Give serving sizes for each food

11. Distinguish between characteristics of low-fat diets and low-cholesterol diets. Write an "X" in the column below "low fat" if the characteristic listed is correct for low-fat diets. Place an "X" in the column below "low chol" if the characteristic listed is correct for low-cholesterol diets. Some characteristics may be correct for both diets.

LOW FAT	**LOW CHOL**	**CHARACTERISTIC**
__________	__________	Allows lean cuts of meat, fish, poultry
__________	__________	Restricts total amount of fat allowed to three servings a day
__________	__________	Omits commercial bakery goods or mixes
__________	__________	Reduces dietary cholesterol to approximately 300 milligrams daily
__________	__________	Allows servings from milk/dairy group if they contain 1 percent fat or less
__________	__________	Treats gallbladder disease, disorders of pancreas, and some malabsorption syndromes
__________	__________	Controls type and amount of fat allowed
__________	__________	Regulates food preparation techniques

TEST

12. Distinguish between characteristics of low-protein diets and high-protein diets. Write an "L" in the blanks before characteristics of low-protein diets and an "H" in the blanks before characteristics of high-protein diets.

______a. May include commercial supplemental formulas

______b. Restricts sodium and potassium

______c. Includes at least 75 percent of the daily protein allowance as complete proteins

______d. Is prescribed for patients in early stages of liver disease or with burns, cancer

______e. Provides sufficient calories to spare protein

______f. Includes between-meal protein feedings

______g. Is prescribed for patients with poor kidney function or severe liver disease

13. Distinguish between foods to use and foods to avoid for a 2-gram sodium diet. Write a "U" in the blanks before foods to use and an "A" in the blanks before foods to avoid.

______a. Vegetables high in natural sodium

______b. Fresh fruits and vegetables

______c. Commercially processed foods

______d. Table salt

______e. Fresh meats

______f. Fruit juices

______g. Herbs and spices

(NOTE: Test questions 14-19 list the assignment sheets. They are an important part of this test. If they have not been completed, check with your instructor.)

14. Make substitutions for foods according to food exchange lists.

15. Prepare foods for a diet modified in consistency.

16. Prepare foods required on an individualized diet.

17. Prepare foods for a diabetic diet.

18. Prepare foods for low-fat and low-cholesterol diets.

19. Prepare foods for a 2-gram sodium diet.

DIET THERAPY
UNIT II

ANSWERS TO TEST

(NOTE: It may be helpful to use your blank test to make a test key. The points designated in parentheses are intended to be guidelines and should be adapted to meet the needs of each teaching/learning situation. The point total for the entire test is 864. The point total for questions 1-13 is 430; the point total for questions 14-19 is 434.)

1. (46 points)

a.	9	g.	2	m.	13	s.	18
b.	3	h.	11	n.	23	t.	22
c.	4	i.	10	o.	20	u.	14
d.	6	j.	1	p.	16	v.	17
e.	5	k.	7	q.	21	w.	15
f.	8	l.	12	r.	19		

2. (9 points)

Answer should include any three of the following

a. Serves as a guide for current practice of diet therapy

b. Provides a collection of the most frequently prescribed diets

c. Assists medical staff in prescribing diets in accordance with established patterns

d. Identifies nutritional adequacy or deficits in diet

e. Provides patterns or guides for the dietary department in preparing meals for prescribed diets

f. Gives information to allow for accurate substitutions on modified diets according to established procedure

3. (16 points)

a.	4	e.	5
b.	2	f.	8
c.	1	g.	7
d.	3	h.	6

ANSWERS TO TEST

4. (10 points)

Answer should include any two of the following

a. Provides sufficient nutrients to meet the needs of healthy individuals in particular stage of life cycle

b. Serves as the foundation for all modified diets

c. Is intended for individuals who do not require any modification of food intake because of disease state

5. (62 points)

a. Clear liquid	b. Full liquid	c. Tube feedings
1) A	1) U	1) U
2) U	2) U	2) A
3) U	3) A	3) U
4) A	4) U	4) U
5) U	5) U	5) U
6) U	6) A	6) A
7) A	7) A	7) U
8) U	8) U	8) U
9) U	9) U	9) U
10) A	10) U	
11) U	11) U	
12) U		

ANSWERS TO TEST

6. (50 points)

a. Surgical soft (soft)	b. Mechanical soft (edentulous)	c. Pureed (blended)
1) A	1) U	1) U
2) A	2) A	2) U
3) U	3) U	3) U
4) A	4) U	4) U
5) U	5) A	5) U
6) U	6) U	
7) A	7) A	
8) A		
9) U		
10) A		
11) A		
12) U		

7. (62 points)

a. Low fiber (low residue, diarrhea)	b. High fiber (high residue)	c. Diet as tolerated (bland)
1) A	1) U	1) A
2) A	2) A	2) U
3) A	3) U	3) U
4) U	4) U	4) A
5) U	5) U	5) A
6) U	6) U	6) U
7) A	7) U	7) A
8) A	8) U	8) A
9) U	9) A	9) U
10) A	10) U	10) A
	11) U	11) A
		12) A
		13) A

ANSWERS TO TEST

8. (78 points)

DIABETIC	REDUCTION	CHARACTERISTIC
X	X	Regulates food preparation techniques and serving sizes
X		Maintains normal blood sugar levels
X	X	Is prescribed and directed by physician
	X	Has flexible spacing and timing of meals
X	X	Provides nutritionally adequate diet
X		Includes liberal amounts of complex carbohydrates but restricts simple sugars and saturated fats
X		Is based on normal dietary pattern with controlled proportions of carbohydrate, fat, and protein
X		Requires regular spacing and timing of meals
	X	Provides method for taking in fewer calories than are used, resulting in weight loss
X	X	Is based on food exchange lists to give variety to menu planning
	X	Is based on normal dietary pattern with total daily calories most important aspect
X		Maintains weight control
	X	Promotes increased exercise to use up calories

9. (8 points)

b, d

10. (22 points)

b, c, d, f, h, i, j, k

ANSWERS TO TEST

11. (32 points)

LOW FAT	LOW CHOL	CHARACTERISTIC
X	X	Allows lean cuts of meat, fish, poultry
X		Restricts total amount of fat allowed to three servings a day
X	X	Omits commercial bakery goods or mixes
	X	Reduces dietary cholesterol to approximately 300 milligrams daily
X	X	Allows servings from milk group if they contain 1 percent fat or less
X		Treats gallbladder disease, disorders of pancreas, and some malabsorption syndromes
	X	Controls type and amount of fat allowed
X	X	Regulates food preparation techniques

12. (14 points)

a. H
b. L
c. L
d. H
e. L
f. H
g. L

13. (21 points)

a. A
b. U
c. A
d. A
e. U
f. U
g. U

ANSWERS TO TEST

14. Evaluated to the satisfaction of the class instructor (34 points)

15. Evaluated to the satisfaction of the clinical instructor (75 points)

16. Evaluated to the satisfaction of the clinical instructor (75 points)

17. Evaluated to the satisfaction of the clinical instructor (100 points)

18. Evaluated to the satisfaction of the clinical instructor (75 points)

19. Evaluated to the satisfaction of the clinical instructor (75 points)

SANITATION
UNIT I

SUGGESTED ACTIVITIES

I. Suggested activities

  A. Order materials to supplement unit.

    1. *Storing and Receiving Procedures,* S808, 35 mm filmstrip/cassette 10 minutes, National Educational Media, Inc., 1979. Available from National Educational Media, Inc., 15760 Ventura Boulevard, Encino, California 91436.

    2. *Kitchen Sanitation Rules,* S804, 35 mm filmstrip/cassette, 8 minutes, National Educational Media, Inc., 1979. Available from National Educational Media, Inc., 15760 Ventura Boulevard, Encino, California 91436.

  B. Provide students with objective sheet.

  C. Provide students with information, assignment, and job sheets.

  D. Discuss unit and specific objectives.

  E. Discuss information and assignment sheets.

  F. Demonstrate and discuss procedures outlined in job sheets.

  G. Develop appropriate learning activities for special needs students.

  H. Review personal hygiene in *Food Service Worker,* Section C, Unit I. Give a short true-false quiz, and discuss in class.

  I. Give a "picture" quiz to review handling of dishes and utensils. Students select the correct method of handling dishes shown in pictures.

  J. Review specific microorganisms by having students draw cards on which are written the names of specific microorganisms. Have students write down everything they remember about the microorganism, and discuss in class what they have written.

  K. Give test.

  L. Reteach if necessary.

II. Instructional materials

  A. Objective sheet

  B. Suggested activities

  C. Information sheet

SUGGESTED ACTIVITIES

D. Class assignment sheets

    1. Class Assignment Sheet #1--Identify the Temperature Danger Zone for Bacteria Growth
    2. Class Assignment Sheet #2--Recommend Ways to Correct Sanitation Errors in Food Preparation

E. Answers to class assignment sheets

F. Clinical assignment sheets

    1. Clinical Assignment Sheet #1--Make Recommendations for Receiving Food in the Dietary Department
    2. Clinical Assignment Sheet #2--Make Recommendations for Dietary Department Refrigerator and Freezer Storage
    3. Clinical Assignment Sheet #3--Make Recommendations for Dietary Department Dry Storage
    4. Clinical Assignment Sheet #4--Make Recommendations for Dietary Department Sanitation Standards for Safeguarding Food
    5. Clinical Assignment Sheet #5--Make Recommendations for Dietary Department Nonfood Storage

G. Answers to clinical assignment sheets

H. Clinical job sheets

    1. Clinical Job Sheet #1--Store Leftover Foods
    2. Clinical Job Sheet #2--Store Opened Boxes of Food

I. Test

J. Answers to test

III. Unit references

A. *Applied Foodservice Sanitation.* National Institute for the Foodservice Industry, 1974.

B. *Being a Food Service Worker: Student Manual.* Chicago: Hospital Research and Educational Trust, 1974.

C. Clements, Irene, and Judy Coffey. *Home Economics I: Basic Core,* rev. by Joyce Sawatzky. Stillwater, Oklahoma: Oklahoma State Department of Vocational and Technical Education/Curriculum and Instructional Materials Center, 1977.

SUGGESTED ACTIVITIES

D. Longree, K., and G.G. Blaker. *Sanitary Techniques in Food Service.* New York: John Wiley and Sons, Inc., 1971.

E. Richardson, T.M. "Sanitation for Food Service Worker." *Institutions Magazine,* 1969.

F. West, B.B., et al. *Food Service in Institutions,* 5th ed. New York: John Wiley and Sons, Inc., 1977.

G. *What Every Homemaker Should Know About Food Germs.* Greenfield, Massachusetts: Channing L. Bete Co., Inc., 1980.

SANITATION
UNIT I

INFORMATION SHEET

I. Terms and definitions

   A. Sanitation--Safe procedures and cleanliness in food handling

   B. Personal hygiene--Cleanliness practiced by the individual

   C. Infected--Containing pathogenic microorganisms

   D. Contaminated--Infected or poisoned by harmful bacteria or chemicals

   E. Hazardous chemicals--Dangerous or poisonous chemicals

   F. Dry storage--Storage area for canned goods, dry goods, and paper goods

   G. Potentially hazardous food--Perishable food that can support quick growth of harmful bacteria

   H. Danger zone--Temperatures between 40°F and 140°F

   (NOTE: Bacteria multiply most quickly in this range. Body temperature and room temperature are ideal for bacterial growth.)

   I. Time-temperature control--Control of amount of time that food is stored and handled at temperatures in the danger zone

   J. Batch cook--To cook food in small quantities as needed to prevent spoilage caused by holding food for long periods of time

II. Common potentially hazardous foods

   A. Meat and meat products

   B. Milk and milk products

   C. Eggs

   D. Fish and shellfish

   E. Poultry

III. Effects of temperature on bacterial growth

   A. The temperatures at which bacteria grow most rapidly are between 40°F and 140°F

   B. Temperatures below 40°F slow down the rate of bacterial growth

   (NOTE: Freezing causes bacteria to become inactive but *does not* kill them.)

   C. Temperatures of 170°F or above are necessary to kill bacteria

INFORMATION SHEET

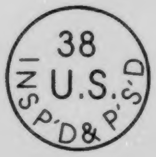
IV. Receiving food in a sanitary manner (Clinical Assignment Sheet #1)

A. Purchase food from approved sources

(NOTE: Look for the USDA inspection stamp on meats; see Figures 1-3.)

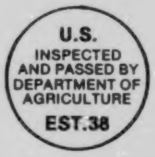
EXAMPLES:

FIGURE 1


38
U.S.
INS P'D & P'S'D

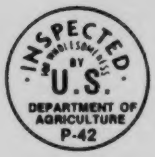
(NOTE: This stamp appears on major cuts of meat carcasses; stamp may not appear on roast or steak cuts.)

FIGURE 2


U.S.
INSPECTED
AND PASSED BY
DEPARTMENT OF
AGRICULTURE
EST.38

(NOTE: This stamp appears on prepackaged, processed meat products.)

FIGURE 3


INSPECTED
FOR WHOLESOMENESS
BY
U.S.
DEPARTMENT OF
AGRICULTURE
P-42

(NOTE: This stamp appears on frozen poultry and processed poultry products.)

B. Inspect cartons and containers for damage

INFORMATION SHEET

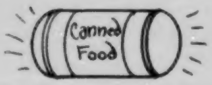
C. Return dented or bulging cans, thawed frozen food products, or damaged merchandise (Figure 4)

EXAMPLES:

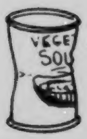
FIGURE 4

CANNED GOODS

Do not buy



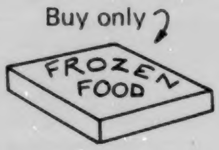
cans with "bulges" on the ends (may indicate bacterial growth inside).



Be wary of cans which are dented or rusted (breaks in cans may allow germs to enter).

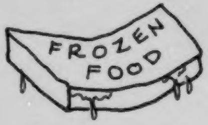
FROZEN FOODS

Buy only



those that are frozen solid.

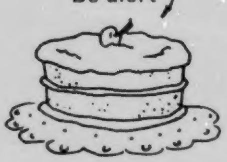
Never buy



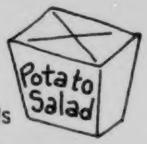
partially thawed frozen foods; or those which have been frozen, thawed and re-frozen.

FRESH-COOKED FOODS

Be alert



for signs of spoilage, especially in the hot summer months when germs multiply fast.



Cream-filled bakery goods and salads with mayonnaise-type dressing are especially dangerous unless they have been properly refrigerated.

D. Unload all perishable products quickly and store immediately in refrigerator or freezer

V. Correct procedures for refrigerator and freezer storage (Clinical Assignment Sheet #2; Clinical Job Sheet #1)

A. Store fresh vegetables and fruits in closed plastic containers on bottom shelf of refrigerator

B. Check refrigerator and freezer temperatures daily

(NOTE: Ideal refrigerator temperatures for storing specific foods range from 31°F to 45°F. Temperatures for storing a variety of foods in the same refrigerator should range from 35°F to 40°F. Freezer temperatures should be 0°F to minus 10°F.)

C. Store food in covered containers

INFORMATION SHEET

D. Place foods in refrigerator so that there is good air circulation for quick cooling

(NOTE: Pans should be placed 4 inches apart and not against cooling unit or sides of refrigerator.)

E. Store raw meats or thawing foods in separate area or on bottom rack

F. Label and date all cooked foods before storing

G. Store leftover foods in refrigerator for no more than twenty-four hours

(NOTE: Freezer storage time varies according to food being stored.)

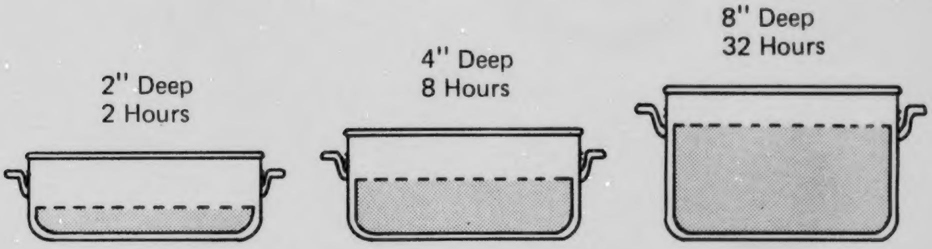
H. Never store food in containers made of toxic metals

I. Use shallow pans to shorten time it takes for food to cool (Figure 5)

EXAMPLES:

FIGURE 5

Lengths of Time to Cool Foods to Safe Temperatures



VI. Correct procedures for dry storage (Clinical Assignment Sheet #3; Clinical Job Sheet #2)

A. Use first-in, first-out system of rotation in storeroom

B. Date merchandise as placed on shelves

C. Store all merchandise on metal shelving 12 inches off floor

(NOTE: Twelve inches is ideal for cleaning purposes.)

D. Tape closed any opened boxes before replacing in storeroom

E. Notify supervisor if signs of rodents or insects appear in storeroom

(NOTE: Common signs are fly specks, damaged food, and discarded roach egg capsules.)

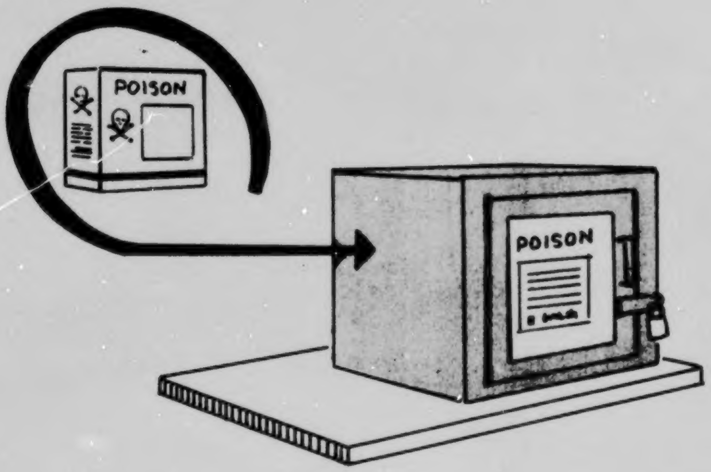
INFORMATION SHEET

F. Store all chemicals and cleaning supplies in storage area separate from food

G. Keep hazardous chemical compounds or poisons away from food, covered, clearly labeled, and stored in a separate storeroom or locked cabinet (Figure 6)

EXAMPLE:

FIGURE 6



Used with permission of the Hospital Research and Educational Trust, Chicago, Illinois.

H. Check storeroom temperature daily

(NOTE: Temperature should be 50°F to 70°F.)

VII. Sanitation practices for safeguarding food (Class Assignment Sheets #1 and #2; Clinical Assignment Sheet #4)

A. Maintain all potentially hazardous food at safe temperatures, except during necessary preparation and service

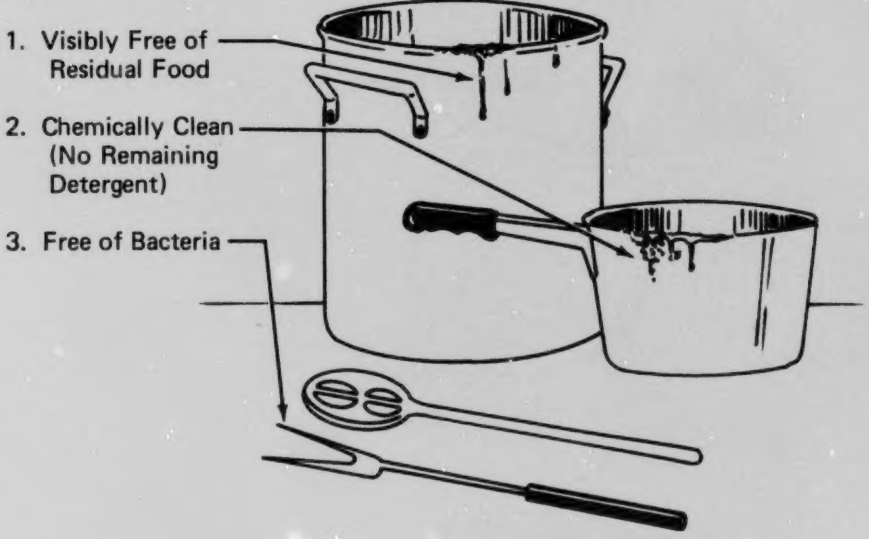
B. Batch cook and serve cooked foods immediately, or store in shallow containers in refrigerator

INFORMATION SHEET

C. Use clean equipment and utensils (Figure 7)

EXAMPLE:

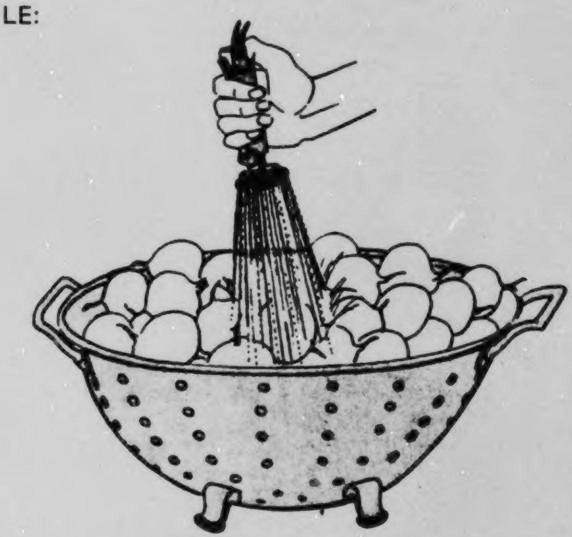
FIGURE 7


1. Visibly Free of Residual Food
2. Chemically Clean (No Remaining Detergent)
3. Free of Bacteria

D. To remove soil and pesticide residue, wash all raw fruits and vegetables in running water before using (Figure 8)

EXAMPLE:

FIGURE 8



Used with permission of the Hospital Research and Educational Trust, Chicago, Illinois.

INFORMATION SHEET

E. Discard questionable or contaminated food

F. Use separate cutting boards for raw and cooked foods

G. Wash and sanitize table tops where food is prepared

H. Practice good personal hygiene

I. Report infected cuts, sores, boils, or rashes to the supervisor

(NOTE: Disease-producing bacteria may exist in cuts and sores.)

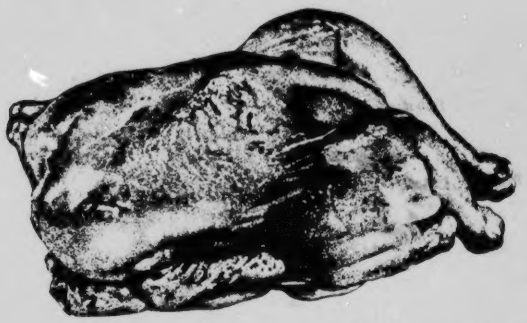
J. Wash hands before handling any food

(NOTE: Cleanliness is as important to the food service worker as it is to medical personnel.)

K. Cook foods to recommended internal temperature (Figures 9 and 10)

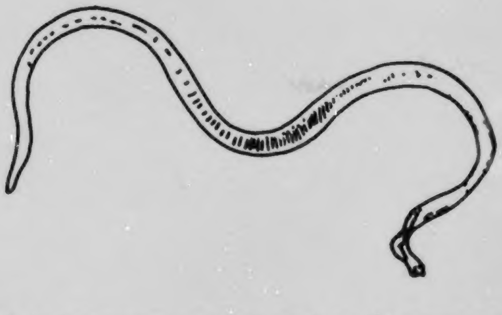
EXAMPLES:

FIGURE 9



(NOTE: When cooking a large food mass, more time is required for the desired internal temperature to be reached.)

FIGURE 10



(NOTE: It is important to cook pork to the recommended internal temperature to ensure that any trichinella parasites that are present will be destroyed.)

INFORMATION SHEET

L. Use strict time-temperature control to keep food out of danger zone

VIII. Nonfood storage (Clinical Assignment Sheet #5)

A. Store nonfood products in separate area from food supply

EXAMPLES: Poisons, toxic agents, cleaning supplies, soaps, stainless steel cleaners

B. Keep nonfood products labeled

C. Keep nonfood products tightly sealed

D. Use nonfood products carefully

E. Use nonfood products only when preparation and serving areas are not in use

F. Use nonfood products only with prior approval of supervisor

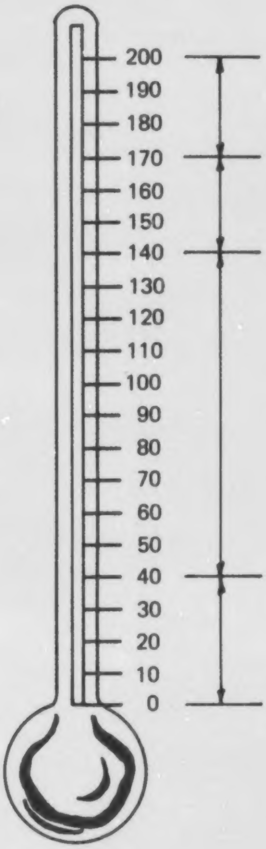
SANITATION
UNIT I

CLASS ASSIGNMENT SHEET #1--IDENTIFY THE TEMPERATURE DANGER ZONE FOR BACTERIA GROWTH

NAME ______________________________ SCORE ______________

Use the Fahrenheit thermometer in Part I to identify the danger zone for bacterial growth. Write an "X" in the blank before the correct answer. Then answer the questions in Part II.

PART I


200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0

______ A. 170°F to 200°F

______ B. 140°F to 170°F

______ C. 40°F to 140°F

______ D. 0° to 40°F

PART II

A. At what temperature are bacteria killed? ______________________________

B. Do freezing temperatures kill bacteria? ______________________________

C. At what temperature range do bacteria grow best? ______________________________

SANITATION
UNIT I

CLASS ASSIGNMENT SHEET #2--RECOMMEND WAYS TO CORRECT SANITATION ERRORS IN FOOD PREPARATION

NAME ____ SCORE ________________

Read the following case studies carefully. Answer the questions following each case study, and then discuss in class.

PART I

Case Study #1

An outbreak of salmonella food poisoning occurred in a health facility. It was traced to the following incident.

Beef roast was contaminated with salmonella when it arrived at the dietary department. The raw roast beef was placed on a cutting board and cut into smaller pieces before being placed in the oven. After the beef was cooked, it was placed on the same cutting board and cut into serving portions. The sliced roast beef was then placed on a steam table at about 10:00 A.M. at a temperature of 110°F to 115°F. Enough time elapsed between the time that the beef was placed on the steam table and the time that it was served to allow a large number of bacteria to grow.

A. The bacteria could have been present on the raw roast beef due to

1. ____

2. ____

B. Conditions were right for bacteria growth due to which food handling errors?

1. ____

2. ____

3. ____

C. How could the problem have been prevented?

1. ____

2. ____

3. ____

CLASS ASSIGNMENT SHEET #2

PART II

Case Study #2

In a large hospital, one of the menu items for the cafeteria was beef stew. The cook made enough servings for 200 persons. This was not an unusual amount to prepare. because the cafeteria fed over 600 people at the noon meal. However, that day, for some reason, the beef stew was not selling. The cook had to make a decision. The stew was being held at 160°F on the cafeteria line to prevent growth of bacteria.

The cook considered the following options:

- --Hold it at 160°F, and hope for a large number of sales the last hour the cafeteria was open
- --Let it cool, and heat each serving as needed
- --Let it cool, and refrigerate it for tomorrow
- --Hold it at 160°F until the cafeteria closed, and then discard it

If the beef stew is held too long at 160°F, it will soon overcook the vegetables, dry out, and spoil the flavor.

A. If you were the cook, what would you do?________________________________

____

____

____

____

B. Could the cook have avoided the problem?________If so, how?________________

____

____

____

____

SANITATION
UNIT I

ANSWERS TO CLASS ASSIGNMENT SHEETS

Class Assignment Sheet #1

Part I--C

Part II

A. Above 170°F

B. No

C. Between 45°F and 140°F

Class Assignment Sheet #2

PART I

(NOTE: These are suggested answers.)

A.
1. Contamination during processing
2. An employee failing to wash hands after a visit to the toilet and then handling the raw meat

B.
1. Holding time too long
2. Holding temperature below 140°F
3. Same cutting board used for raw and cooked roast beef

C.
1. Prepare smaller batches of roast beef for the serving line
2. Keep temperature above 140°F while holding
3. Use a separate cutting board for raw and cooked meat

PART II

(NOTE: These are suggested answers.)

A. Hold it at 160°F until cafeteria closes, and then discard it

B. Yes; heat the beef stew in smaller batches to place on steam table; keep extra amount refrigerated for heating if necessary

SANITATION
UNIT I

CLINICAL ASSIGNMENT SHEET #1--MAKE RECOMMENDATIONS FOR RECEIVING FOOD IN THE DIETARY DEPARTMENT

NAME ____ SCORE ________________

Observe how food is received in the dietary department. Write an "X" in the column under "yes" or "no" to answer each question on the following chart. Write your comments concerning each situation in the spaces provided.

	YES	NO	COMMENTS
Was food purchased from approved sources?			
Were cartons inspected for damage upon arrival?			
Were dented cans and other damaged merchandise returned?			
Were frozen foods checked to be sure they were solidly frozen?			
Were perishable foods immediately stored in the freezer or refrigerator?			

What recommendations do you have to make after observing food as it is received in the dietary department?

____

____

____

____

____

____

____

____

____

____

____

____

SANITATION
UNIT I

CLINICAL ASSIGNMENT SHEET #2--MAKE RECOMMENDATIONS FOR DIETARY DEPARTMENT REFRIGERATOR AND FREEZER STORAGE

NAME ______________________ SCORE __________

Observe refrigerator and freezer storage in the dietary department. Write an "X" in the column under "yes" or "no" to answer each question on the following chart. Write comments concerning each situation in the spaces provided.

	YES	NO	COMMENTS
Are fresh vegetables and fruits stored in closed plastic containers on the bottom shelf of the refrigerator or in a separate area?			
Are refrigerator and freezer temperatures checked daily?			
Is all food stored in the refrigerator covered?			
Are foods placed in the refrigerator and freezer so that there is good air circulation?			
Are raw meats or frozen foods that are thawing kept in a separate area or on a bottom rack?			
Are all cooked foods labeled and dated?			
Are leftover foods stored no longer than twenty-four hours?			
Are all foods stored in containers that are made of safe, nontoxic metals?			
Is all cooked food placed in shallow pans in the refrigerator for quick cooling?			

CLINICAL ASSIGNMENT SHEET #2

What recommendations do you make after observing food as it is stored in the refrigerator and freezer in the dietary department?

SANITATION
UNIT I

CLINICAL ASSIGNMENT SHEET #3--MAKE RECOMMENDATIONS FOR DIETARY DEPARTMENT DRY STORAGE

NAME ______________________________ SCORE ______________

Observe dry storage in the dietary department. Write an "X" in the column under "yes" or "no" to answer each question on the following chart. Write comments concerning each situation in the space provided.

	YES	NO	COMMENTS
Is a stock rotation system used in the storeroom?			
Is dry storage stock put away using the first-in, first-out system of storage?			
Is all merchandise stored on metal shelving 12 inches off the floor?			
Are all opened boxes taped closed correctly?			
Are there any signs of insects or rodents?			
Are all chemicals and cleaning supplies stored in an area separate from food?			
Is the storeroom temperature checked daily? (NOTE: Temperature should be 50°F to 70°F.)			
Are foods labeled that are stored in containers other than original package?			

What recommendations do you make after observing dry food storage in the dietary department?

____

____

____

____

SANITATION
UNIT I

CLINICAL ASSIGNMENT SHEET #4--MAKE RECOMMENDATIONS FOR DIETARY DEPARTMENT SANITATION STANDARDS FOR SAFEGUARDING FOOD

NAME______________________________________ SCORE ________________

Observe sanitation standards for safeguarding food in the dietary department. Write an "X" in the column under "yes" or "no" to answer each question on the following chart. Write your comments concerning each situation in the spaces provided.

	YES	NO	COMMENTS
Are all foods maintained at either 40°F or below, or above 140°F?			
Is food cooked in small batches to prevent long holding times?			
Are cooking utensils and equipment clean and sanitary?			
Are all fresh fruits and vegetables washed before serving?			
Are separate cutting boards used for raw and cooked foods?			
Are table tops where food is prepared washed and sanitized regularly?			
Are all employees practicing good personal hygiene? EXAMPLES: Clean uniform and apron; hairnet or hair restraint			
Are all employees free of infected cuts, sores, boils, and rashes?			
Are employees washing hands before handling food?			
Are foods cooked to the recommended internal temperature? EXAMPLE: Pork cooked to 170°F			
Is food left at room temperature only long enough to prepare?			

CLINICAL ASSIGNMENT SHEET #4

What recommendations do you make after observing sanitation standards for safeguarding food in the dietary department?

SANITATION
UNIT I

CLINICAL ASSIGNMENT SHEET #5--MAKE RECOMMENDATIONS FOR DIETARY DEPARTMENT NONFOOD STORAGE

NAME ______________________ SCORE __________

Observe nonfood storage in the dietary department. Write an "X" in the column under "yes" or "no" to answer each question on the following chart. Write your comments concerning each situation.

	YES	NO	COMMENTS
Are nonfood products stored in a room separate from the food supply? EXAMPLES: Poisons, toxic agents, cleaning supplies			
Are all nonfood products clearly labeled?			
Are all nonfood products tightly sealed?			
Are nonfood products used cautiously when preparation and serving areas are in use?			
Are all nonfood products used only with prior approval of supervisor?			

What recommendations do you make after observing nonfood storage in the dietary department?

____

____

____

____

____

____

____

____

____

____

SANITATION
UNIT I

ANSWERS TO CLINICAL ASSIGNMENT SHEETS

Clinical Assignment Sheet #1--Evaluated to the satisfaction of the clinical instructor

Clinical Assignment Sheet #2--Evaluated to the satisfaction of the clinical instructor

Clinical Assignment Sheet #3--Evaluated to the satisfaction of the clinical instructor

Clinical Assignment Sheet #4--Evaluated to the satisfaction of the clinical instructor

Clinical Assignment Sheet #5--Evaluated to the satisfaction of the clinical instructor

SANITATION
UNIT I

CLINICAL JOB SHEET #1--STORE LEFTOVER FOODS

I. Equipment and supplies

A. Sanitary plastic containers with lids

(NOTE: Do not use cottage cheese cartons because they cannot be properly sanitized.)

B. Spoons or appropriate utensils

C. Masking tape

D. Scissors

E. Grease pencil

F. Foods to be stored

II. Procedure

A. Use spoon or appropriate utensil to place food in plastic container

B. Cover container tightly with a lid

C. Place cut strip of masking tape on side of plastic container

D. With grease pencil, mark on the masking tape the name of food and date stored

E. Place container in appropriate storage area

EXAMPLE: Freezer, refrigerator, dry storage

F. Repeat steps A-E for each food to be stored

(NOTE: Use a clean spoon or utensil for each different food.)

G. Wash spoons or utensils

H. Put away masking tape and grease pencil

I. Clean up work area

SANITATION
UNIT I

CLINICAL JOB SHEET #2--STORE OPENED BOXES OF FOOD

I. Supplies

- A. Masking tape
- B. Scissors
- C. Opened box

II. Procedure

- A. After closing opened box, cut several strips of masking tape and place across lid, extending down side of box about 2 inches

  (NOTE: If contents are in plastic bag, bag should be tied shut before closing box.)

- B. Place strips of tape so that insects cannot get into box
- C. Return box to storeroom
- D. Put away masking tape and scissors
- E. Clean work area, if necessary

FPW - 37-B

SANITATION
UNIT I

TEST

NAME ______________________________ SCORE ______________

1. Match terms associated with sanitation to their correct definitions. Write the correct numbers in the blanks.

_____a. Safe procedures and cleanliness in food handling

_____b. Cleanliness practiced by the individual

_____c. Containing pathogenic microorganisms

_____d. Infected or poisoned by harmful bacteria or chemicals

_____e. Dangerous or poisonous chemicals

_____f. Storage area for canned goods, dry goods, and paper goods

_____g. Perishable food that can support quick growth of harmful bacteria

_____h. Temperatures between 40°F and 140°F

_____i. Control of amount of time that food is stored and handled at temperatures in the danger zone

_____j. To cook food in small quantities as needed to prevent spoilage caused by holding food for long periods of time

1. Time-temperature control
2. Dry storage
3. Sanitation
4. Personal hygiene
5. Batch cook
6. Danger zone
7. Hazardous chemicals
8. Infected
9. Contaminated
10. Potentially hazardous food

2. List common potentially hazardous foods.

a. ______________________________

b. ______________________________

c. ______________________________

d. ______________________________

e. ______________________________

3. Select from the following list correct statements about the effects of temperature on bacterial growth. Write an "X" in the blank before each correct answer.

_____a. Temperatures of 140°F or above are necessary to kill bacteria

_____b. Temperatures below 40°F slow down the rate of bacterial growth

TEST

______c. The temperatures at which bacteria grow most rapidly are between 40°F and 140°F

______d. Temperatures of 0°F or below kill bacteria

4. Discuss receiving food in a sanitary manner.

5. Select from the following list correct procedures for refrigerator and freezer storage. Write an "X" in the blank before each correct procedure.

______a. Store fresh vegetables and fruits in closed plastic containers on bottom shelf of refrigerator

______b. Use shallow pans to shorten time it takes for food to cool

______c. Store leftover foods in refrigerator for no more than twenty-four hours

______d. Label and date all cooked foods before storing

______e. Allow all cooked foods to cool completely before refrigerating

______f. Never store food in containers made of toxic metals

______g. Place foods in refrigerator so that there is good air circulation for quick cooling

______h. Check refrigerator and freezer temperatures daily

______i. Store leftover cooked foods in one large, deep container, rather than in several small, shallow containers

______j. Store raw meats or thawing foods in separate area or on bottom rack

______k. Store food in covered containers

______l. Check freezer temperature weekly

6. Select from the following list correct procedures for dry storage. Write an "X" in the blank before each correct procedure.

______a. Use first-in, first-out system of rotation in storeroom

______b. Use bent cans of food first

TEST

______c. Date merchandise as placed on shelves

______d. Store bagged, heavy merchandise on floor

______e. Store all merchandise on metal shelving 12 inches off floor

______f. Store heavy items on the highest shelf

______g. Tape closed any opened boxes before replacing in storeroom

______h. Notify supervisor if signs of rodents or insects appear in storeroom

______i. Use food from cans with bulging lids only after boiling thoroughly

______j. Store all chemicals and cleaning supplies in storage area separate from food

______k. Check storeroom temperature daily

______l. Keep hazardous chemical compounds or poisons away from food, covered, clearly labeled, and stored in a separate storeroom or locked cabinet

7. State six sanitation practices for safeguarding food.

a. ______________________________

b. ______________________________

c. ______________________________

d. ______________________________

e. ______________________________

f. ______________________________

8. Discuss nonfood storage.

____

____

____

____

____

____

TEST

(NOTE: Test questions 9-16 list the assignment and job sheets. They are an important part of this test. If they have not been completed, check with your instructor.)

9. Identify the temperature danger zone for bacteria growth.
10. Recommend ways to correct sanitation errors in food preparation.
11. Make recommendations for receiving food in the dietary department.
12. Make recommendations for dietary department refrigerator and freezer storage.
13. Make recommendations for dietary department dry storage.
14. Make recommendations for dietary department sanitation standards for safeguarding food.
15. Make recommendations for dietary department nonfood storage.
16. Demonstrate the ability to
    a. Store leftover foods.
    b. Store opened boxes of food.

SANITATION
UNIT I

ANSWERS TO TEST

(NOTE: It may be helpful to use your blank test to make a test key. The points designated in parentheses are intended to be guidelines and should be adapted to meet the needs of each teaching/learning situation. The point total for the entire test is 394. The point total for questions 1-8 is 129; the point total for questions 9-16 is 265.)

1. (20 points)

   a. 3
   b. 4
   c. 8
   d. 9
   e. 7
   f. 2
   g. 10
   h. 6
   i. 1
   j. 5

2. (5 points)

   a. Meat and meat products
   b. Milk and milk products
   c. Eggs
   d. Fish and shellfish
   e. Poultry

3. (8 points)

   b, c

4. (12 points)

   Discussion should include the following

   a. Purchase food from approved sources
   b. Inspect cartons and containers for damage
   c. Return dented or bulging cans, thawed frozen food products, or damaged merchandise
   d. Unload all perishable products quickly and store immediately in refrigerator or freezer

ANSWERS TO TEST

5. (24 points)

   a, b, c, d, f, g, h, j, k

6. (24 points)

   a, c, e, g, h, j, k, l

7. (18 points)

   Answer should include any six of the following

   a. Maintain all potentially hazardous food at safe temperatures, except during necessary preparation and service
   b. Batch cook and serve cooked foods immediately, or store in shallow containers in refrigerator
   c. Use clean equipment and utensils
   d. To remove soil and pesticide residue, wash all raw fruits and vegetables in running water before using
   e. Discard questionable or contaminated food
   f. Use separate cutting boards for raw and cooked foods
   g. Wash and sanitize table tops where food is prepared
   h. Practice good personal hygiene
   i. Report infected cuts, sores, boils, or rashes to the supervisor
   j. Wash hands before handling any food
   k. Cook foods to recommended internal temperature
   l. Use strict time-temperature control to keep food out of danger zone

8. (18 points)

   Discussion should include the following

   a. Store nonfood products in separate area from food supply
   b. Keep nonfood products labeled
   c. Keep nonfood products tightly sealed

ANSWERS TO TEST

   d. Use nonfood products carefully

   e. Use nonfood products only when preparation and serving areas are not in use

   f. Use nonfood products only with prior approval of supervisor

9. Evaluated to the satisfaction of the class instructor (15 points)

10. Evaluated to the satisfaction of the class instructor (20 points)

11. Evaluated to the satisfaction of the clinical instructor (35 points)

12. Evaluated to the satisfaction of the clinical instructor (35 points)

13. Evaluated to the satisfaction of the clinical instructor (35 points)

14. Evaluated to the satisfaction of the clinical instructor (50 points)

15. Evaluated to the satisfaction of the clinical instructor (35 points)

16. Performance skills evaluated to the satisfaction of the clinical instructor

   a. (25 points)

   b. (15 points)

SAFETY
UNIT II

UNIT OBJECTIVE

After completing this unit, the student should be able to practice safe habits in the food production area of the dietary department. This knowledge will be shown by completing assignment sheets and unit test with a minimum score of 100 percent.

SPECIFIC OBJECTIVES

After completing this unit, the student should be able to

1. Name food service hazards.
2. Select from a list safe practices in receiving and storage.
3. State safe practices in floor care.
4. Select from a list safe practices in food preparation and cooking.
5. State safe practices in handling dishes and glassware.
6. Select from a list safe practices with kitchen machines.
7. Select from a list safe practices in serving areas.
8. Select from a list general rules for safety.
9. Select from a list good practices for dietary department fire safety.
10. Name the three parts of the fire triangle.
11. Identify the correct extinguishers for the four classes of fires.
12. Record safe practices in receiving and storage.
13. Record safe practices in food preparation and cooking.
14. Record safe practices with kitchen machines.
15. Record dietary department fire safety practices.
16. Demonstrate the correct use of a fire extinguisher.

SAFETY
UNIT II

SUGGESTED ACTIVITIES

I. Suggested activities

A. Order materials to supplement unit.

1. *Avoid Injuries from Kitchen Machines.* Color 35 mm filmstrip with cassette, 7 minutes, National Educational Media, Inc., 1981. Available from National Educational Media, Inc., 21601 Devonshire Street, Chatsworth, California 91311.

2. *Kitchen Fires--Prevention and Control.* Color 35 mm filmstrip with cassette, 9 minutes, National Education Media, Inc., 1981. Available from National Educational Media, Inc., 21601 Devonshire Street, Chatsworth, California 91311.

3. *Accidents Don't Happen.* Color 35 mm filmstrip with cassette, 8 minutes, National Restaurant Association, 1981-82. Available from 311 First Street, NW, Washington, D.C. 20001.

4. *Work Smart, Stay Safe.* Color 35 mm filmstrip with cassette, 12 minutes, National Restaurant Association, 1981-82. Available from National Restaurant Association, 311 First Street, NW, Washington, D.C. 20001.

5. *The Angry Flame.* Color 35 mm filmstrip with cassette, 12 minutes, National Restaurant Association, 1981-82. Available from National Restaurant Association, 311 First Street, NW, Washington, D.C. 20001.

B. Make transparency.

C. Provide students with objective sheet.

D. Discuss unit and specific objectives.

E. Provide students with information, assignment, and job sheets.

F. Discuss information, and assignment sheets.

G. Demonstrate and discuss procedures outlined in job sheets.

H. Develop appropriate learning activities for special needs students.

I. Divide students into two groups. Give them a safety topic such as preventing cuts, preventing burns, preventing falls. See which side can state the most rules that fit the safety topic.

J. Give test.

K. Reteach if necessary.

SUGGESTED ACTIVITIES

II. Instructional materials

- A. Objective sheet
- B. Suggested activities
- C. Information sheet
- D. Transparency master: TM #1--The Fire Triangle
- E. Clinical assignment sheets
    1. Clinical Assignment Sheet #1--Record Safe Practices in Receiving and Storage
    2. Clinical Assignment Sheet #2--Record Safe Practices in Food Preparation and Cooking
    3. Clinical Assignment Sheet #3--Record Safe Practices with Kitchen Machines
    4. Clinical Assignment Sheet #4--Record Dietary Department Fire Safety Practices
- F. Answers to clinical assignment sheets
- G. Clinical Job Sheet #1--Demonstrate the Correct Use of a Fire Extinguisher
- H. Test
- I. Answers to test

III. Unit references

- A. *Being a Food Service Worker,* Student Manual. Chicago: Hospital Research and Educational Trust, 1974.
- B. Clements, Irene, and Judy Coffey. *Home Economics I: Basic Core,* rev. by Joyce Sawatzky. Stillwater, Oklahoma: State Department of Vocational and Technical Education/Curriculum and Instructional Materials Center, 1977.
- C. *Safety Guide for Health Care Institutions.* Chicago: American Hospital Association and the National Safety Council, 1972.
- D. West, B.B., et al. *Food Service in Institutions,* 5th ed., New York: John Wiley and Sons, 1977.

SAFETY
UNIT II

INFORMATION SHEET

I. Food service hazards

(NOTE: Hospital food service employees suffer about 20 percent of the total disabling injuries received by all hospital personnel.)

A. Objects

1. Broken dishware
2. Sharp utensils
3. Power machinery

B. Situations

1. Inexperienced personnel

   (NOTE: Personnel may have little education and may be unable to comprehend job instruction rules and operation manuals.)

2. Rush of job
3. Demand for perfection

II. Safe practices in receiving and storage (Clinical Assignment Sheet #1)

A. Use adequate storage space

(NOTE: Safe and sanitary working conditions cannot be maintained in a badly crowded area.)

B. Use strong shelving

C. Keep heavy and bulky materials on lower shelves

D. Use proper equipment to reach upper shelves safely

EXAMPLE: Use sturdy stepladders.

E. Know and practice safe lifting procedures

F. Use proper tools to unpack foods safely

G. Make sure that walk-in refrigerators and freezers are equipped with safety closures

H. Label items removed from original container

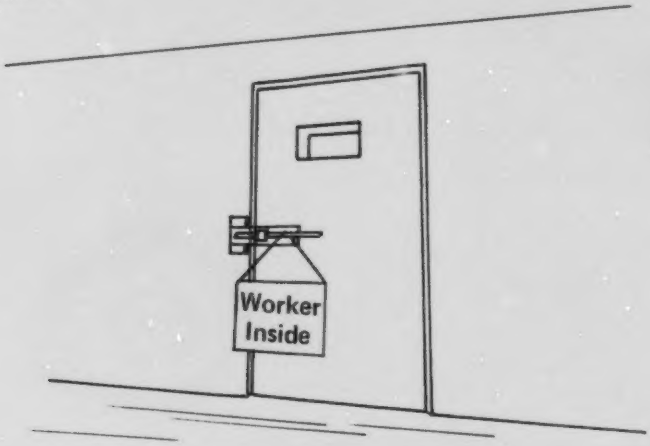
I. Store all chemicals in area separate from food

INFORMATION SHEET

J. Hang "Worker Inside" sign outside walk-in refrigerator or freezer (Figure 1)

EXAMPLE:

FIGURE 1



K. Hold wire or strapping from containers while cutting it to prevent loose ends from flying into eyes

L. Wear slip-resistant safety shoes

M. Keep stairs, rails, loading docks, and similar facilities in good repair

III. Safe practices in floor care (Clinical Assignment Sheet #1)

A. Keep floors clean, dry, uncluttered, and free of broken tiles

B. Mop up spills immediately with a clean mop

C. Wear shoes with low rubber heels and slip-resistant soles

D. Report leaking or sweating pipes to supervisor

(NOTE: Floor drains are not permitted where contamination by sewage backflow is a possibilty.)

IV. Safe practices in food preparation and cooking (Clinical Assignment Sheet #2)

A. Store knives properly

EXAMPLES: Use magnetic racks, knife holders.

B. Use extreme caution with knives

INFORMATION SHEET

C. Remove lids completely when opening cans

D. Wash grease filters at regular intervals

E. Do all cooking beneath range hood

F. Run exhaust fan to prevent buildup of highly flammable oil vapors

G. Clean range hoods at least once a week

H. Shut off steam before cleaning steam table or dishwashers

I. Assign two persons to move heavy containers full of hot liquid or food

J. Use food thermometers

(NOTE: Never use ordinary mercury thermometers in food.)

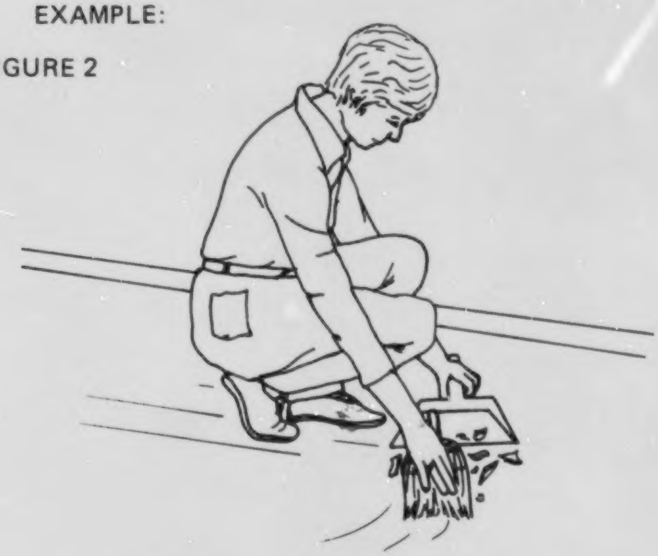
K. Never use pots and pans that have loose handles

V. Safe practices in handling dishes and glassware (Clinical Assignment Sheet #2)

A. Never pick up broken dishes or glass with bare hands (Figure 2)

EXAMPLE:

FIGURE 2



B. Discard chipped or cracked ware of any kind

(NOTE: Chipped or cracked ware is both unsafe and unsanitary.)

C. Never place glass or china in pot and pan sink

(NOTE: It may be broken by metal pots.)

INFORMATION SHEET

D. Never store glassware or dishes near the floor

(NOTE: Glassware and dishes stored near the floor are subject to "floor splash" contamination.)

E. Store glasses and cups upside down on clean surface to protect edges

VI. Safe practices with kitchen machines (Clinical Assignment Sheet #3)

A. Use slicing, chopping, and mixing machines only if authorized

B. Use guards for meat-slicing machines and other kitchen equipment

C. Use a wooden tamp with food choppers and meat grinders

D. Never place hands inside a garbage disposal unit

(NOTE: If you must remove an object, be certain that the power is off. Remove object under immediate supervision of the operator.)

E. Stop the mixing machine before testing or moving mixture

F. Vent all pressure cooking equipment before trying to remove covers

G. Keep gauges of pressure cooking equipment under constant inspection

H. Handle pressure cooking equipment only if authorized

I. Ground all electrical equipment, either with a three-way plug or a separate ground wire

J. Unplug electrical equipment by grasping plug, never by yanking cord

K. Be sure that floor and your hands are dry before touching electrical equipment

L. Unplug and cool toaster before attempting to pry out burned toast

M. Operate microwave ovens safely by following manufacturer's directions

N. Do not wear free-flowing clothes when working around power appliances

(NOTE: Avoid ties, flouncy aprons, loose sleeves, and jewelry of any kind. Long hair that is not properly restrained can also get caught in power appliances.)

VII. Safe practices in serving areas

A. Use caution with doors in high-traffic areas

B. Serve no food that has been subject to unsanitary handling

EXAMPLE: Do not serve food into which broken glass may have fallen or water from a leaking overhead pipe may have dripped.

INFORMATION SHEET

C. Use caution when wheeling food carts

EXAMPLE: In passing through doorways, always pull the cart after you; *do not push it through*.

D. Never overload trays or liquid containers

(NOTE: Clean up spilled food immediately.)

E. Operate electric carts safely

(CAUTION: Report frayed cords or broken plugs to the supervisor immediately.)

F. Keep food covered during transit

G. Never let food carts block corridors or doorways

H. Keep large swivel wheels in line with cart so that they will not trip anyone

I. Make space for tray before taking it into patient's room; remove tray as soon as patient is finished

VIII. General rules for safety

A. Promptly report all injuries and illnesses to supervisor

B. To prevent spread of disease, wash hands after visiting restroom and after smoking

C. Report to supervisor any conditions that can cause injury

EXAMPLE: Report greasy spots on the floor, defective electrical appliances, defective ladders.

IX. Good practices for dietary department fire safety (Clinical Assignment Sheet #4)

A. Prevent grease fires

EXAMPLES: Keep appliances from accumulating a film of grease.
Remove grease drippings from broiler trays immediately.
Keep oil level of deep fryers well below the top (at least 3 inches below top).

B. Know how to operate fire extinguishers, hood fans, and sprinkler system

C. Smother a grease fire with a tight-fitting lid

D. Extinguish grease fire with bicarbonate of soda or salt

(NOTE: Never use water or flour; either would make the grease fire spread.)

E. Ventilate a gas oven and make sure that gas is not present before trying to light oven

INFORMATION SHEET

F. Observe "no smoking" rules, and use care in extinguishing cigarettes and matches

G. Never allow trash to accumulate in storeroom, dietary department, or hallways

EXAMPLES: Remove empty cartons, paper.

H. Keep trash containers tightly covered

I. Keep oily rags and aprons in a covered metal container

J. Never overload outlets or use extension cords

K. Identify danger areas, fuse boxes, and electrical outlets

X. The fire triangle (Transparency #1)

A. Fuel

EXAMPLES: Paper, grease

B. Heat

EXAMPLES: Flame, sparks, electricity

C. Oxygen

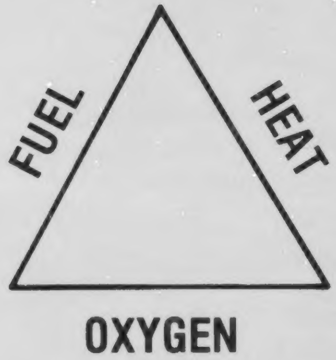
(NOTE: Oxygen is present in the air we breathe.)

XI. Classes of fires and fire extinguishers (Clinical Job Sheet #1)

CLASS	FUEL	EXTINGUISHER
Class A	Wood, paper, cloth	Water
Class B	Gas, oil, grease (burning liquids)	CO_2 or dry chemicals **(CAUTION: Never use water; it will spread a class B fire.)**
Class C	Electricity	CO_2 or dry chemicals **(CAUTION: Shut off electricity before extinguishing fire.)**
Class D	Combustible metals EXAMPLE: Magnesium	Special dry powder only

The Fire Triangle

To produce fire, three things must be present at the same time.

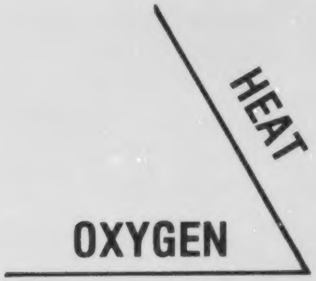


FUEL

HEAT

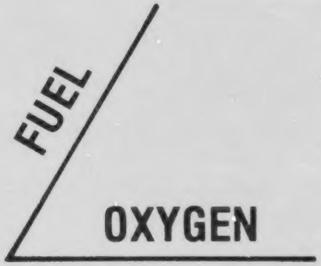
OXYGEN

If any one of the three is missing, a fire cannot be started; with the removal of any one, the fire will be extinguished.



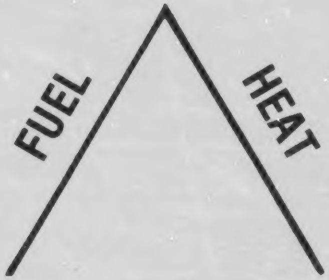
HEAT

OXYGEN



FUEL

OXYGEN



FUEL

HEAT

FPW - 57-B

SAFETY
UNIT II

CLINICAL ASSIGNMENT SHEET #1--RECORD SAFE PRACTICES IN RECEIVING AND STORAGE

NAME ______________________ SCORE ____________

Safety is important in receiving and storage. Record safe practices in receiving and storage by checking the appropriate box and making comments about each item listed.

(NOTE: Your comments may include information concerning how a procedure is carried out or may be a recommendation for improvement that you feel should be made.)

A. Adequate storage space is available. Yes ☐ No ☐

Comments: ______________________

B. Strong shelving is provided in storage areas. Yes ☐ No ☐

Comments: ______________________

C. Heavy and bulky materials are kept on lower shelves. Yes ☐ No ☐

Comments: ______________________

D. Sturdy stepladders are used to reach upper shelves safely. Yes ☐ No ☐

Comments: ______________________

E. Personnel use safe lifting procedures. Yes ☐ No ☐

Comments: ______________________

F. Personnel use proper tools to unpack foods safely. Yes ☐ No ☐

Comments: ______________________

CLINICAL ASSIGNMENT SHEET #1

G. Walk-in refrigerators and freezers have safety closures.

Yes ☐ No ☐

Comments: ______________________________

____

H. Personnel hang "Worker Inside" sign outside a walk-in refrigerator or freezer to keep fellow employees from locking it.

Yes ☐ No ☐

Comments: ______________________________

____

I. Personnel wear slip-resistant shoes.

Yes ☐ No ☐

Comments: ______________________________

____

J. Floors are clean, dry, uncluttered, and free of broken tiles.

Yes ☐ No ☐

Comments: ______________________________

____

K. Spills are wiped up immediately with a clean mop.

Yes ☐ No ☐

Comments: ______________________________

____

L. Storage and receiving areas are free of leaking or sweating pipes.

Yes ☐ No ☐

Comments: ______________________________

____

SAFETY
UNIT II

CLINICAL ASSIGNMENT SHEET #2--RECORD SAFE PRACTICES IN FOOD PREPARATION AND COOKING

NAME ____________________ SCORE ____________

Safety is important in food preparation and cooking. Record safe practices in food preparation and cooking areas by checking the appropriate box and making comments about each item listed.

(NOTE: Your comments may include information concerning how a procedure is carried out or may be a recommendation for an improvement that you feel should be made.)

A. Knives are stored properly. Yes ☐ No ☐

Comments: ____________________

____

B. Employees use extreme caution with knives. Yes ☐ No ☐

Comments: ____________________

____

C. Lids are removed completely when opening cans. Yes ☐ No ☐

Comments: ____________________

____

D. Grease filters are washed at regular intervals. Yes ☐ No ☐

Comments: ____________________

____

How often? ____________________

E. All cooking is done beneath range hood. Yes ☐ No ☐

Comments: ____________________

____

F. Exhaust fans are run to prevent buildup of highly flammable oil vapors. Yes ☐ No ☐

Comments: ____________________

____

CLINICAL ASSIGNMENT SHEET #2

G. Range hoods are cleaned at least once a week. Yes ☐ No ☐

Comments: ______________________________

H. Steam is shut off before cleaning steam tables or dishwashers. Yes ☐ No ☐

Comments: ______________________________

I. Two persons cooperate to move heavy containers of hot liquid or food. Yes ☐ No ☐

Comments: ______________________________

J. Food thermometers are used. Yes ☐ No ☐

Comments: ______________________________

K. Pots and pans that have loose handles are not used. Yes ☐ No ☐

Comments: ______________________________

L. Broken dishes or glass is never picked up with bare hands. Yes ☐ No ☐

Comments: ______________________________

M. Chipped or cracked ware of any kind is discarded. Yes ☐ No ☐

Comments: ______________________________

N. Glassware or dishes are never placed in pot-and-pan sink. Yes ☐ No ☐

Comments: ______________________________

CLINICAL ASSIGNMENT SHEET #2

O. Glassware and dishes are not stored near the floor. Yes ☐ No ☐

Comments: ____

____

P. Glasses and cups are stored upside down on clean surface to protect edges. Yes ☐ No ☐

Comments: ____

____

FPW - 63-B

SAFETY
UNIT II

CLINICAL ASSIGNMENT SHEET #3--RECORD SAFE PRACTICES WITH KITCHEN MACHINES

NAME ______________________ SCORE __________

Safety is important when working with kitchen machines. Record safe practices with kitchen machines by checking the appropriate box and making comments about each item listed.

(NOTE: Your comments may include information concerning how a procedure is carried out or may be a recommendation for an improvement that you feel should be made.)

A. Slicing, chopping, and mixing machines are used only by authorized personnel.

Yes ☐ No ☐

Comments: ______________________

____

B. Guards for meat-slicing machines and other kitchen equipment are provided, and personnel always use them.

Yes ☐ No ☐

Comments: ______________________

____

C. Wooden tamps are provided for food choppers and meat grinders; personnel always use them.

Yes ☐ No ☐

Comments: ______________________

____

D. Employees never place hands inside garbage disposal unit.

Yes ☐ No ☐

Comments: ______________________

____

E. Employees stop mixing machine before testing or moving mixture.

Yes ☐ No ☐

Comments: ______________________

____

CLINICAL ASSIGNMENT SHEET #3

F. Employees vent all pressure cooking equipment before removing covers.

Yes ☐ No ☐

Comments: ____________________

____

G. Gauges of pressure cooking vessels are under constant inspection.

Yes ☐ No ☐

Comments: ____________________

____

H. Only authorized personnel handle pressure cooking equipment.

Yes ☐ No ☐

Comments: ____________________

____

I. All electrical equipment is grounded with a three-way plug or separate ground wire.

Yes ☐ No ☐

Comments: ____________________

____

J. Personnel always unplug electrical equipment by grasping plug, never by yanking cord.

Yes ☐ No ☐

Comments: ____________________

____

K. Employees make sure that floor and their hands are dry before touching any electrical equipment.

Yes ☐ No ☐

Comments: ____________________

____

L. Employees unplug and cool the toaster before attempting to pry out burned toast.

Yes ☐ No ☐

Comments: ____________________

____

CLINICAL ASSIGNMENT SHEET #3

M. Employees follow manufacturer's directions to operate microwave ovens safely.

Yes ☐ No ☐

Comments: ______________________________

____

N. Employees wear close-fitting clothing when working around power appliances.

Yes ☐ No ☐

Comments: ______________________________

____

FPW - 67-B

SAFETY
UNIT II

CLINICAL ASSIGNMENT SHEET #4--RECORD DIETARY DEPARTMENT FIRE SAFETY PRACTICES

NAME ______________________________ SCORE ______________

Fire safety is important in the dietary department. Record practices in the dietary department for fire safety by checking the appropriate box and making comments about each item listed.

(NOTE: Your comments may include information concerning how a procedure is carried out or may be a recommendation for an improvement that you feel should be made.)

A. Grease fires are prevented because employees remove grease drippings from boiler trays immediately, add oil to deep fryers to depth less than 3 inches, and perform other practices that prevent grease fires.

Yes ☐ No ☐

Comments: ______________________________

____

B. All employees know how to use a fire extinguisher correctly.

Yes ☐ No ☐

Comments: ______________________________

____

C. The oven is ventilated and the person lighting the oven makes sure that there is no gas present before trying to light oven.

Yes ☐ No ☐

Comments: ______________________________

____

D. Employees carefully observe "no smoking" rules, and use care in extinguishing cigarettes and matches.

Yes ☐ No ☐

Comments: ______________________________

____

E. Trash is never allowed to accumulate in the storeroom, dietary department, or hallways.

Yes ☐ No ☐

Comments: ______________________________

____

CLINICAL ASSIGNMENT SHEET #4

F. Trash containers are kept tightly covered at all times. Yes ☐ No ☐

Comments: ____________________

____

G. Oily rags and aprons are kept in a covered metal container while waiting to be laundered. Yes ☐ No ☐

Comments: ____________________

____

H. Outlets are not overloaded, and extension cords are not used on electrical equipment. Yes ☐ No ☐

Comments: ____________________

____

I. Any condition that may be a fire or safety hazard in the dietary department is reported to the supervisor immediately. Yes ☐ No ☐

Comments: ____________________

____

SAFETY
UNIT II

ANSWERS TO CLINICAL ASSIGNMENT SHEETS

Clinical Assignment Sheet #1--Evaluated to the satisfaction of the clinical instructor

Clinical Assignment Sheet #2--Evaluated to the satisfaction of the clinical instructor

Clinical Assignment Sheet #3--Evaluated to the satisfaction of the clinical instructor

Clinical Assignment Sheet #4--Evaluated to the satisfaction of the clinical instructor

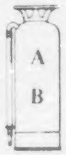
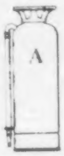
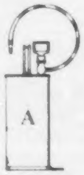
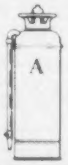
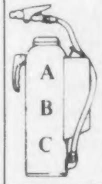
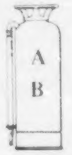
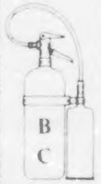
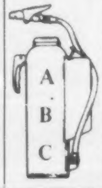
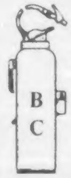
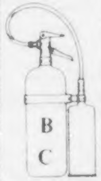
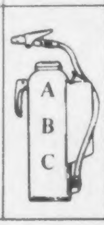
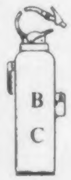
SAFETY
UNIT II

CLINICAL JOB SHEET #1--DEMONSTRATE THE CORRECT USE OF A FIRE EXTINGUISHER

(NOTE: The procedure outlined in this job sheet may be changed to allow for differences in equipment. Read directions carefully on the particular fire extinguisher used.)

I. Equipment--Carbon dioxide fire extinguisher for classes A and B, fires or dry chemical fire extinguisher for classes A, B, and C fires

EXAMPLES: Types of Fire Extinguishers

KIND OF FIRE		**APPROVED TYPE OF EXTINGUISHER**						
		MATCH UP PROPER EXTINGUISHER WITH CLASS OF FIRE SHOWN AT LEFT Important! Using the wrong type extinguisher for the class of fire may be dangerous						
DECIDE THE CLASS OF FIRE YOU ARE FIGHTING...	**...THEN CHECK THE COLUMNS TO THE RIGHT OF THAT CLASS**	**FOAM** Solution of Aluminum Sulphate and Bicarbonate of Soda	**CARBON DIOXIDE** Carbon Dioxide Gas Under Pressure	**SODA ACID** Bicarbonate of Soda Solution and Sulphuric Acid	**PUMP TANK** Plain Water	**GAS CARTRIDGE** Water Expelled by Carbon Dioxide Gas	**MULTI-PURPOSE DRY CHEMICAL**	**ORDINARY DRY CHEMICAL**
A	**CLASS A FIRES Use These Extinguishers** **ORDINARY COMBUSTIBLES** • Wood • Paper • Cloth, Etc							
B	**CLASS B FIRES Use These Extinguishers** **FLAMMABLE LIQUIDS, GREASE** • Gasoline • Paints • Oils, Etc.							
C	**CLASS C FIRES Use These Extinguishers** **ELECTRICAL EQUIPMENT** • Motors • Switches, Etc.							

Used with permission of AAVIM, Athens, Georgia.

CLINICAL JOB SHEET #1

II. Procedure

A. Carry extinguisher to fire

B. Pull seal ring on side of handle if extinguisher is so equipped

C. Release horn or nozzle and grasp by insulated handle

D. Stand only 6 to 8 feet away from fire

E. Direct horn or nozzle at base of fire or flame

F. Squeeze handle grip

G. Continue to spray until fire is completely extinguished

(CAUTION: Always report use of a fire extinguisher to your supervisor so that the extinguisher can be recharged.)

SAFETY
UNIT II

TEST

NAME ______________________________ SCORE ________________

1. Name food service hazards.

    a. Objects

        1) ______________________________

        2) ______________________________

        3) ______________________________

    b. Situations

        1) ______________________________

        2) ______________________________

        3) ______________________________

2. Select from the following list safe practices in receiving and storage. Write an "X" in the blank before each correct answer.

    ______a. Hang "Worker Inside" sign outside walk-in refrigerator or freezer

    ______b. Use proper equipment to reach upper shelves safely

    ______c. Use adequate storage space

    ______d. Hold wire or strapping from containers while cutting it to prevent loose ends from flying into eyes

    ______e. Know and practice safe lifting procedures

    ______f. Use strong shelving

    ______g. Keep stairs, rails, loading docks, and similar facilities in good repair

    ______h. Be sure that there are no safety closures on walk-in refrigerators and freezers

    ______i. Wear slip-resistant safety shoes

    ______j. Keep heavy, bulky boxes on high or top shelves

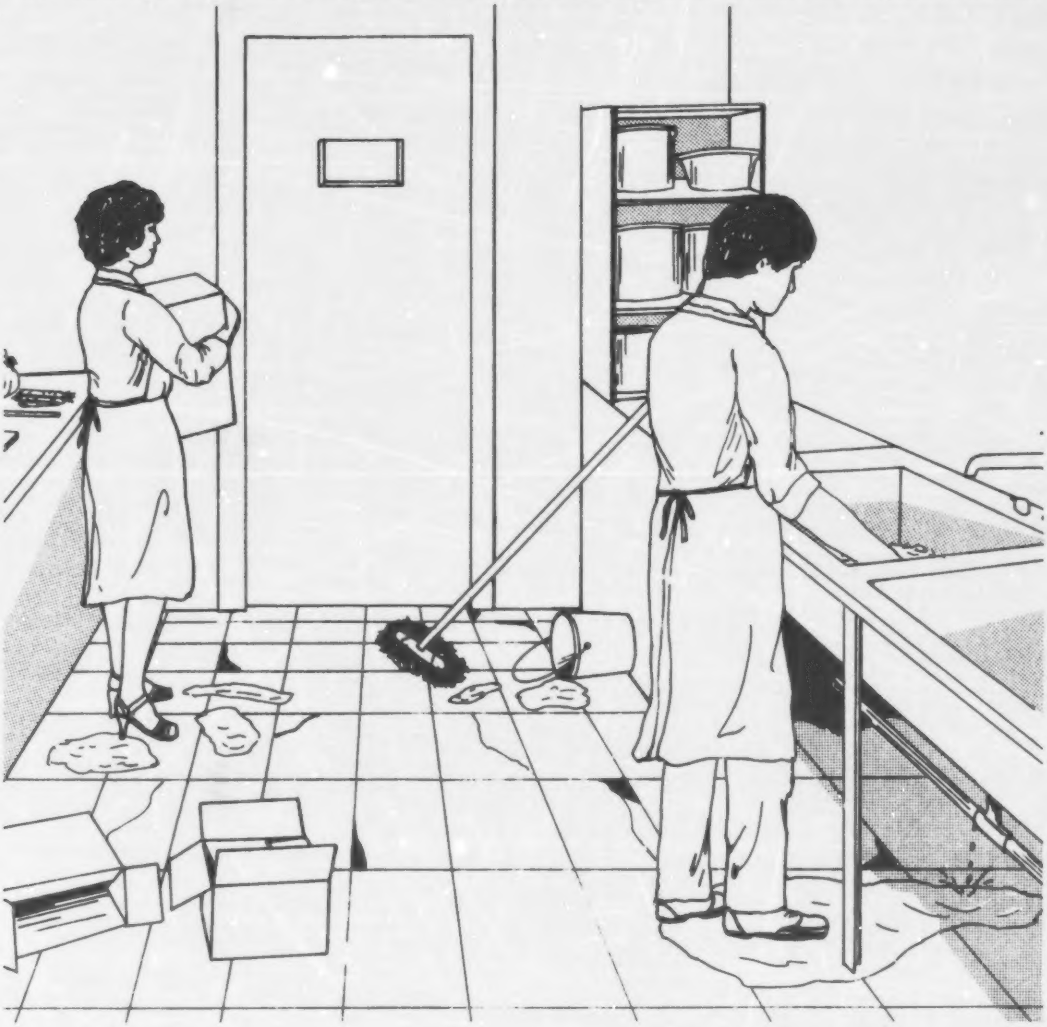
    ______k. Use proper tools to unpack foods safely

    ______l. Label items removed from original container

    ______m. Store chemicals in same area as food

TEST

3. State safe practices in floor care that would correct errors shown in the picture below.



a.

b.

c.

d.

TEST

4. Select from the following list safe practices in food preparation and cooking. Write an "X" in the blank before each correct answer.

______a. Wash grease filters at regular intervals

______b. Leave part of the lid attached to the can when opening

______c. Store knives properly

______d. Shut off steam before cleaning steam table or dishwashers

______e. Do all cooking beneath range hood

______f. Use extreme caution with knives

______g. Clean range hoods once a month

______h. Use food thermometers

______i. Never use pots and pans that have loose handles

______j. Run exhaust fan to prevent buildup of highly flammable oil vapors

______k. Never assign two persons to move heavy containers full of hot liquid or food

5. State safe practices in handling dishes and glassware.

a. ____

b. ____

c. ____

d. ____

e. ____

6. Select from the following list safe practices with kitchen machines. Write an "X" in the blank before each correct answer.

______a. Handle pressure cooking equipment only if authorized

______b. Do not stop the mixing machine before testing or moving mixture if you are using a rubber spatula

______c. Do not wear free-flowing clothes when working around power appliances

______d. Use guards for meat-slicing machines and other kitchen equipment

______e. Vent all pressure cooking equipment before trying to remove covers

______f. Use slicing, chopping, and mixing machines only if authorized

TEST

_____g. Unplug and cool toaster before attempting to pry out burned toast

_____h. Keep gauges of pressure cooking equipment under constant inspection

_____i. Ground all electrical equipment, either with a three-way plug or a separate ground wire

_____j. Operate microwave ovens safely by following manufacturer's directions

_____k. Never place hands inside a garbage disposal unit

_____l. Unplug electrical equipment by yanking the cord

_____m. Be sure that floor and your hands are dry before touching electrical equipment

_____n. Use a wooden tamp with food choppers and meat grinders

7. Select from the following list safe practices in serving areas. Write an "X" in the blank before each correct answer.

_____a. Use caution with doors in high-traffic areas

_____b. Serve no food that has been subject to unsanitary handling

_____c. Leave food carts in corridors

_____d. Use caution when wheeling food carts

_____e. Set tray on patient's bed while positioning bedside table

_____f. Operate electric carts safely

_____g. Keep large swivel wheels in line with cart so that they will not trip anyone

_____h. Fill trays and liquid containers as full as possible

_____i. Keep food covered during transit

8. Select from the following list general rules for safety. Write an "X" in the blank before each correct answer.

_____a. Wait at least one day before reporting minor injuries to your supervisor

_____b. Take short cuts to save time once you have sufficient experience in operating kitchen machines

_____c. To prevent spread of disease, wash hands after visiting restroom and after smoking

_____d. Wait until the supervisor is in a good mood to report safety hazards you observe

TEST

9. Select from the following list good practices for dietary department fire safety. Write an "X" in the blank before each correct answer.

_____a. Keep oily rags and aprons in a cardboard box in a closet

_____b. Extinguish grease fires with bicarbonate of soda or salt

_____c. Know how to operate fire extinguishers, hood fans, and sprinkler system

_____d. Never overload outlets or use extension cords

_____e. Ventilate a gas oven and make sure that gas is not present before trying to light oven

_____f. Put out a grease fire with water

_____g. Allow trash to accumulate in storeroom

_____h. Prevent grease fires

_____i. Identify danger areas, fuse boxes, and electrical outlets

_____j. Observe "no smoking" rules, and use care in extinguishing cigarettes and matches

_____k. Keep trash containers tightly covered

_____l. Extinguish grease fires with water

10. Name the three parts of the fire triangle.

a. ______________________________

b. ______________________________

c. ______________________________

11. Identify the correct extinguishers for the four classes of fires. Write the correct names in the blanks. Some answers may be used more than once.

Dry chemicals	**Water**
CO_2	**Special dry powder**

CLASS	FUEL	EXTINGUISHERS
Class B	Gas, oil, grease (burning liquids)	a. ______________ or b. ______________

TEST

CLASS	FUEL	EXTINGUISHERS
Class A	Wood, paper, cloth	c. ____________
Class D	Combustible metals	d. ____________
Class C	Electricity	e. ____________ or f. ____________

(NOTE: Test questions 12-16 list the assignment and job sheets. They are an important part of this test. If they have not been completed, check with your instructor.)

12. Record safe practices in receiving and storage.

13. Record safe practices in food preparation and cooking.

14. Record safe practices with kitchen machines.

15. Record dietary department fire safety practices.

16. Demonstrate the correct use of a fire extinguisher.

SAFETY
UNIT II

ANSWERS TO TEST

(NOTE: It may be helpful to use your blank test to make a test key. The points designated in parentheses are intended to be guidelines and should be adapted to meet the needs of each teaching/learning situation. The point total for the entire test is 455. The point total for questions 1-11 is 180; the point total for questions 12-16 is 275.)

1. (6 points)
    a. Objects
        1) Broken dishware
        2) Sharp utensils
        3) Power machinery
    b. Situations
        1) Inexperienced personnel
        2) Rush of job
        3) Demand for perfection

2. (30 points)

    a, b, c, d, e, f, g, i, k, l

3. (12 points)
    a. Keep floors clean, dry, uncluttered, and free of broken tile
    b. Mop up spills immediately with a clean mop
    c. Wear shoes with low rubber heels and slip-resistant soles
    d. Report leaking or sweating pipes to supervisor

4. (24 points)

    a, c, d, e, f, h, i, j

5. (15 points)
    a. Never pick up broken dishes or glass with bare hands
    b. Discard chipped or cracked ware of any kind

ANSWERS TO TEST

c. Never place glass or china in pot and pan sink

d. Never store glassware or dishes near the floor

e. Store glasses and cups upside down on clean surface to protect edges

6. (22 points)

a, c, d, e, f, g, h, i, j, k, m, n

7. (24 points)

a, b, d, f, g, i

8. (10 points)

c

9. (22 points)

b, c, d, e, h, i, j, k

10. (3 points)

a. Fuel

b. Heat

c. Oxygen

11. (12 points)

a. CO_2 or dry chemicals

b. Dry chemicals or CO_2

c. Water

d. Special dry powder only

e. CO_2 or dry chemicals

f. Dry chemicals or CO_2

12. Evaluated to the satisfaction of the clinical instructor (50 points)

13. Evaluated to the satisfaction of the clinical instructor (50 points)

ANSWERS TO TEST

14. Evaluated to the satisfaction of the clinical instructor (50 points)

15. Evaluated to the satisfaction of the clinical instructor (50 points)

16. Performance skills evaluated to the satisfaction of the clinical instructor (75 points)

MENU PLANNING, PURCHASING, RECEIVING, AND STORAGE
UNIT I

SUGGESTED ACTIVITIES

I. Suggested activities

A. Order materials to supplement unit.

1. Charts

a. *Dry Storage Practices*. 1977. Available from National Restaurant Association, One IBM Plaza, Suite 2600, Chicago, Illinois 60611.

(NOTE: This chart outlines recommended safety and sanitation practices for dry-storage areas. Charts are vinyl coated with self-adhesive for posting.)

b. *Frozen Storage Practices*. 1977. Available from National Restaurant Association, One IBM Plaza, Suite 2600, Chicago, Illinois 60611.

(NOTE: This chart outlines recommended practices concerning maintenance and temperatures for the handling of food in frozen storage. Chart is vinyl coated with self-adhesive for posting.)

c. *Refrigerated Storage Practices*. 1977. Available from National Restaurant Association, One IBM Plaza, Suite 2600, Chicago, Illinois 60611.

(NOTE: This reference chart shows recommended storage practices with a checklist format. Chart gives suggested temperatures for produce, dairy, meat, and seafood. Chart is vinyl coated with self-adhesive for posting.)

d. *Temperatures for Food Safeness Chart*. 1970. Available from National Restaurant Association, One IBM Plaza, Suite 2600, Chicago, Illinois 60611.

(NOTE: This thermometer chart indicates safe temperatures. Clear plastic protects it from soil and dampness.)

2. Cassette tape with filmstrips or 35 mm slides

a. *The Menu Is Served*. #670128. Available from Communications in Learning, Inc., 2280 Main Street, Buffalo, New York 14214 (716) 837-7555.

(NOTE: The purpose and importance of planning a menu and the accuracy of menu service are explained.)

SUGGESTED ACTIVITIES

b. *Receiving Our Products.* #670117. Available from Communications in Learning, Inc., 2280 Main Street, Buffalo, New York 14214.

(NOTE: This program explains proper methods of receiving, inspecting, and verifying delivery of products.)

c. *Storing Our Products.* #670118. Available from Communications in Learning, Inc., 2280 Main Street, Buffalo, New York 14214.

(NOTE: This program reviews proper storage procedures for all products used within the department.)

d. *What Is Good Food Service?* #670121. Available from Communications in Learning, Inc., 2280 Main Street, Buffalo, New York 14214.

(NOTE: How does the patient decide if the food is good? Appearance, temperature, presentation, and acceptability of food are explained.)

e. *Let's Talk About Food Quality,* Part I. #670122. Available from Communications in Learning, Inc., 2280 Main Street, Buffalo, New York 14214.

(NOTE: This program introduces professional food preparation, recipes, quality controls, temperature controls, and batch cooking.)

B. Make transparencies.

C. Provide students with objective sheet.

D. Discuss unit and specific objectives.

E. Provide students with information and assignment sheets.

F. Discuss information and assignment sheets.

G. Develop appropriate learning activities for special needs students.

H. Have students bring a copy of one day's menu from their facilities. Discuss differences and similarities.

I. If students work in facilities where selective menus are used, have them bring samples to share with class.

J. Have students discuss palatability factors observed at their noon meal.

K. Have qualified person demonstrate the art of garnishing. Discuss importance of appearance of food.

L. Discuss proper procedure for taking food temperatures. Stress sanitation of thermometer, as well as proper positioning of thermometer in food.

SUGGESTED ACTIVITIES

M. Review *Food Service Worker,* Section C, Unit IV, "Food-Borne Illnesses."

N. Have students observe preparation time of vegetables, in relation to serving time, at their facilities. Share these observations with class. Also discuss the palatability of overcooked vegetables.

O. Have students analyze available storage areas in their facilities. What steps might they take to increase storage if necessary, without major expenditure?

EXAMPLES: Fabricate pallets on casters for added storage. If they can be moved easily and cleaned easily, they meet sanitation codes.

Build shelves on wall.

P. Have students list one advantage and one disadvantage of the arrangement of the storeroom at their facilities. Discuss as a class.

Q. Give test.

R. Reteach if necessary.

II. Instructional materials

A. Objective sheet

B. Suggested activities

C. Information sheet

D. Transparency masters

1. TM #1 — Factors Determined by the Menu
2. TM #2 — Factors Affecting Palatability

E. Class Assignment Sheet #1 — Indicate Adjustments Necessary on Invoice

F. Answers to class assignment sheet

G. Clinical assignment sheets

1. Clinical Assignment Sheet #1 — Check Food Quality
2. Clinical Assignment Sheet #2 — Check Delivery of Food, Using Order and Invoice

H. Answers to clinical assignment sheets

I. Test

J. Answers to test

SUGGESTED ACTIVITIES

III. Unit references

- A. American Hospital Association. *Improving Work Methods in Small Hospitals.* Waukegan, Illinois: Visual Images, Inc., 1975.
- B. Knight, John B., and Lendal H. Kotschevar. *Quantity Food Production, Planning, and Management.* Boston, Massachusetts: CBI Publishing Company, Inc., 1979.
- C. Mahaffey, Mary J., et al. *Food Service Manual for Health Care Institutions.* Chicago: American Hospital Association, 1981.
- D. Ross, Lynne N., and Roberta M. McHenry. *Food Purchasing: Study Course.* Ames, Iowa: Iowa State University Press, 1978.
- E. Stokes, Judy Ford. *Cost Effective Quality Food Service.* Germantown, Maryland: Aspen Systems Corporation, 1979.
- F. West, B. B., et al. *Food Service in Institutions,* 5th ed. New York: John Wiley and Sons, Inc., 1977.

MENU PLANNING, PURCHASING, RECEIVING, AND STORAGE
UNIT I

INFORMATION SHEET

I. Terms and definitions

A. Cycle menu — Set of carefully planned menus that are repeated at definite intervals

(NOTE: Cycle menus allow flexibility, use of seasonal foods, and use of left-over foods.)

EXAMPLE: Four-week cycle or six-week cycle, depending on average length of patient stay

B. Menu — Plan of foods to be used in a given period of time

(NOTE: The menu is the heart of food service on which all activity is based.)

C. Palatable — Agreeable or pleasing to the taste

D. Perishables — Food items with limited storage life; items subject to early spoilage

EXAMPLES: All fresh and frozen products

E. Quality — Feature characterized by excellence

F. Selective menu — Plan of foods that allows choices between several items offered

(NOTE: A selective menu requires purchasing and preparation of a greater variety of food than does a regular menu, but a selective menu provides better patient acceptance because patients have a choice. This type of menu also requires more labor, and thus increases food service costs.)

G. Staples — Food items that have long shelf life

EXAMPLES: Flour, sugar, cereal, canned goods

II. Uses of a well-planned menu

(NOTE: The food production worker must translate the written menu into attractive, palatable, nourishing food.)

A. Providing nutritionally adequate meals

B. Providing variety

INFORMATION SHEET

C. Indicating preparation methods desired

D. Indicating proper portions

E. Including palatable foods that complement each other

F. Assisting in controlling costs

III. Factors determined by the menu (Transparency #1)

(NOTE: Retain records of menus *as actually served* for at least thirty days. Plan menus in advance.)

A. Nutritional adequacy

B. Costs

(NOTE: Costs include food and labor costs.)

C. Types of food to be purchased

D. Equipment needed

E. Personnel needed

(NOTE: Factors related to personnel include skills needed, total number of employees needed, supervision required, and work schedules.)

F. Budget

IV. Advantages of cycle menus

A. Menus can be more carefully planned

(NOTE: Better planning and purchasing result in lower costs. Monotony can be avoided.)

B. Menu-planning time is reduced

C. Purchasing is simplified

(NOTE: The repetition gives employees greater knowledge of amount of food required. Personnel become more efficient in planning their work, coordinating the meal, and utilizing their time.)

D. Quality of food products can be improved through practice

(NOTE: Repetition allows standardizing preparation procedures.)

INFORMATION SHEET

E. Work loads can be fairly distributed

F. Equipment can be better utilized

G. Plate-waste studies make it possible to eliminate unpopular foods

V. Methods of checking food quality (Clinical Assignment Sheet #1)

(NOTE: Each food service employee must have high standards to produce superior-quality food.)

A. Tasting product before serving

(NOTE: Adjust seasoning as necessary for a palatable product.)

B. Judging appearance of food

(NOTE: Remember to garnish.)

C. Checking meat and vegetables for tenderness

(NOTE: As a rule of thumb, most meat and vegetables should be tender enough to cut with a fork.)

D. Checking desired temperatures with thermometer

EXAMPLE:

TEMPERATURE STANDARDS

Food Item	Serving Temp., °F (°C)	Palatable Temp., °F (°C)
Hot liquids	185 (85)	150 (66)
Hot cereals	175 (80)	150 (66)
Soups	180 (82)	130 (54)
Meats	150 (66)	110 (44)
Eggs	145 (63)	110 (44)
Vegetables	160 (71)	110 (44)
Cold liquids	36 (2)	50 (10)
Cold foods	50 (10)	65 (18)

E. Surveying patients for food acceptance

INFORMATION SHEET

VI. Factors that affect palatability (Transparency #2)

(NOTE: Prepare food as near to serving time as possible.)

A. Appearance

1. Color

(NOTE: Remember that the eye eats first.)

2. Consistency

3. Arrangement

4. Size of portion

(NOTE: Too large a serving may decrease the appetite of a person who is ill.)

5. Shape or form

B. Flavor

1. Temperature

2. Seasoning

3. Texture

4. Odor

(NOTE: Some patients with cancer cannot tolerate the smell of hot food and require cold items.)

5. Degree of doneness

6. Wholesomeness or safety of food

VII. Factors in determining purchasing needs

(NOTE: These factors vary with each facility.)

A. Menu

(NOTE: The menu dictates the need for perishables and staples.)

INFORMATION SHEET

B. Available storage

EXAMPLES: Dry storage, refrigerated storage

C. Budget and cost control

D. Quality

EXAMPLES: Prime, choice, or good grades of beef

(NOTE: Choose the grade, appearance, and sizes that best suit your facility's needs.)

E. Quantity

(NOTE: If a food production worker knows the approximate weights and sizes of various products, quantities needed may be ordered within fairly precise limits. See example on following page.)

INFORMATION SHEET

EXAMPLE:

Common Container Sizes

CONTAINER			PRODUCTS
Industry term	Consumer description		
	Approx. net weight (check label)	Approx. cups	
8 oz	8 oz	1	Fruits, vegetables, specialities*
Picnic	10 ½ oz	1 ¼	Condensed soups, small quantities of fruits, vegetables, meat and fish products, specialities*
12 oz (vacuum)	12 oz	1 ½	Used largely for vacuum-packed corn
No. 300	1 lb (14 oz) for blueberries 1 lb for most other products	1 ¾	Pork and beans, baked beans, meat products, cranberry sauce, blueberries, specialties*
No. 303	16 to 17 oz	2	Fruits, vegetables, meat products, ready-to-serve soups, specialities*
No. 2	1 lb 4 oz or 20 oz or 18 fl oz	2 ½	Juices, ready-to-serve soups, specialities,* a few fruits and vegetables
No. 2 ½	1 lb 13 oz or 46 fl oz	3 ½	Fruits, some vegetables (pumpkin, sauerkraut, spinach and other greens, tomatoes)
No. 3 cyl	3 lb 3 oz or 46 fl oz	5 ¾	Fruit and vegetable juices, whole chicken, pork and beans, condensed soup, some vegetables for institutional use
No. 10	6 ½ lb to 7 lb 5 oz	12 to 13	Fruits, vegetables for restaurant and institutional use

*Specialties: Usually a food combination such as macaroni, spaghetti, Spanish-style rice, Mexican-style foods, Chinese foods, tomato aspic

Meats, poultry, fish, and seafood are almost entirely advertised and sold under weight terminology.

Substituting One Can for Another Size	Approximate
1 No. 10 can equals	7 No. 303 (1 lb) cans
1 No. 10 can equals	5 No. 2 (1 lb 4 oz) cans
1 No. 10 can equals	4 No. 2 ½ (1 lb 13 oz) cans
1 No. 10 can equals	2 No. 3 cyl (46-50 oz) cans

Reprinted by permission from *Food Purchasing: Study Course* by Lynn N. Ross and Roberta M. McHenry. © 1978 by The Iowa State University Press, Ames, Iowa 50010.

INFORMATION SHEET

VIII. Proper receiving procedures (Class Assignment Sheet #1; Clinical Assignment Sheet #2)

(NOTE: Improper receiving of goods may actually increase expenditures. Accepting products of poor quality or incorrect amounts can mean financial loss to the facility.)

A. Check accuracy of delivery

(NOTE: Count items received. Compare what is delivered against purchase order. Check perishables first. Be sure to check for inspection seal on fresh produce.)

B. Refuse items of poor quality

(NOTE: Open cases of canned items to check.)

EXAMPLES: Refuse wet frozen packages, bulging cans, cans with dents on seams, broken containers, overripe produce.

C. Weigh meat

(NOTE: Meat is one of the most expensive items in food service. Even a small discrepancy adds up in a hurry.)

EXAMPLE: One facility ordered and was billed for 200 pounds of meat. Only 180 pounds were delivered. At $1.33 per pound, that is a loss of $26.60. If this happened once a week, the facility would lose $1,383.20 in one year. Also, additional meat would have to be ordered to cover the menu requirements, and the facility would therefore pay twice the value of the meat. Improper receiving procedures are costly!

D. Sign invoice and retain a copy

(NOTE: Before signing an invoice, be certain that the delivery person has made on the invoice a notation of any discrepancies. Remember, it is easier to get credit at the time of delivery than later. Once you sign the invoice, you verify purchase, and this tells the administration that the invoice can be paid.)

E. Transfer food and supplies to appropriate storage areas

(NOTE: Transfer perishable foods first.)

F. Date all items

(NOTE: Some facilities require price marking on each item. This is an effective way to familiarize employees with costs.)

INFORMATION SHEET

IX. Important factors in storage of perishables

(NOTE: Do not overbuy!)

A. Proper temperature

(NOTE: Store perishables at the proper temperature to prevent growth of bacteria.)

B. Proper humidity

(NOTE: High humidity maintains quality longer than low humidity.)

X. Proper storage procedures for food and supplies

(NOTE: Proper storage prevents loss due to spoilage and/or theft. It is important to maintain and protect the financial and nutritional investment made in food and supplies.)

A. Dry food storage

1. Arrange items systematically

EXAMPLE: All fruits together, alphabetized, labels turned to front

2. Follow first-in, first-out (FIFO) policy

(NOTE: Rotation of stock is necessary to prevent spoilage.)

3. Provide good air circulation

(NOTE: Keep food off floor and away from walls and ceiling.)

4. Maintain proper temperature

(NOTE: Check and record temperatures daily.)

5. Store unripe fruit and vegetables in dry storage until they reach a good-quality, edible stage

6. Keep storage area clean

(NOTE: Keep storage area free of spills, dirt, insects, and/or rodents.)

INFORMATION SHEET

B. Refrigerator/freezer storage

(NOTE: Refrigerator/freezer storage preserves the nutritive value and appealing quality of perishable food. Employees should be trained to obtain all food needed at once to eliminate constant opening of doors. This will decrease energy use.)

1. Maintain proper temperature

   (NOTE: Check and record temperatures daily.)

   EXAMPLES: Fruits and vegetables stored at 40°F to 45°F; dairy products, eggs, meat at 32°F to 40°F; frozen foods at minus 10°F to 0°F

2. Provide good air circulation

   (NOTE: Keep items away from sides of refrigeration unit. Leave 4 inches of space between pans that contain cooked foods to allow for air circulation. Avoid covering shelves with foil.)

3. Store items only in "food grade" containers

   (CAUTION: Do not use trash-can liners for food storage.)

4. Cover all items

5. Store raw foods or thawing foods on bottom racks

6. Label and date items

   (NOTE: Turn labels to front. Put labels on side of container, not top.)

7. Use proper procedures for leftovers

   EXAMPLES: Cool quickly in shallow pans; keep for only twenty-four to forty-eight hours.

C. Nonfood supplies storage

1. Store in separate area from food supplies and/or food preparation areas

   (CAUTION: Never store cleaning supplies in empty food containers.)

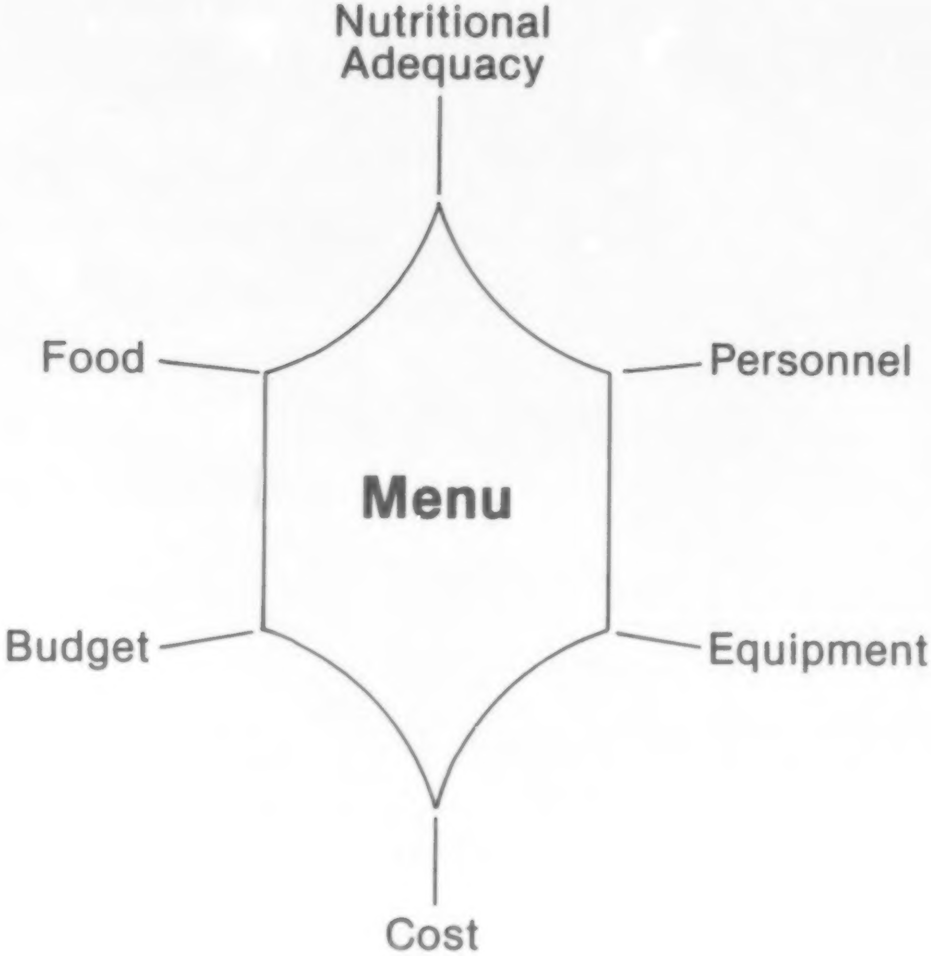
2. Keep supplies well marked

3. Use supplies cautiously

   (NOTE: Always read labels and follow manufacturer's instructions and cautions for use.)

FPW - 17-C

Factors Determined by the Menu



Nutritional Adequacy

Food

Personnel

Menu

Budget

Equipment

Cost

TM #1

Factors Affecting Palatability

- **Palatability**
  - **Appearance**
    - Color
    - Consistency
    - Arrangement
    - Size of portion
    - Shape or form
  - **Flavor**
    - Temperature
    - Seasoning
    - Texture
    - Odor
    - Degree of doneness
    - Wholesomeness or safety

From *Food Service in Institutions,* 5th ed. by Bessie Brooks West, LeVelle Wood, Virginia Harger, and Grace Shugart. Copyright © 1977. Reprinted by permission of John Wiley and Sons, Inc.

TM #2

FPW - 19-C

FPW - 21-C

MENU PLANNING, PURCHASING, RECEIVING, AND STORAGE
UNIT I

CLASS ASSIGNMENT SHEET #1 — INDICATE ADJUSTMENTS NECESSARY ON INVOICE

NAME ______________________________ SCORE ______________

To ensure proper credit, it is necessary to make adjustments on the invoice at the time of delivery. These adjustments should be made *before* you sign the invoice.

Complete this assignment sheet by indicating the adjustments necessary on the invoice in "A" using the information in "B." Write your answers on the invoice as you would if receiving these goods at your facility.

A. Invoice

Slot	Quan.	Cntr.	Description	Pack	Size	Price	Extension	Prod. Code
34	1	CS	SR Oranges Mandarin	24	2 ½	44.50	44.50	36830
514	1	CS	SR Apricots Sliced Peeled	6	10	29.95	29.95	01040
724	1	CS	CR Tomato Puree	6	10	22.00	22.00	15065
253	2	CS	SH Diet Cola	24	8 oz	6.70	13.40	19521
263	1	CS	SH Diet Ginger Ale	24	8 oz	6.70	6.70	19547
273	1	CS	SH Diet Lemon Lime	24	8 oz	6.70	6.70	19463
Stock	Out	CS	SR Tomato Juice Diet	24	2	17.90	1CS	16998
241	1	CS	SR Redisol No 4	1	10 lb	16.50	16.50	45997
*** Frozen Follows ****								
14	1	CS	SR Okra Cut Breaded IQF	1	20 lb	14.19	14.19	77784
376	1	CS	PL Apple Sticks	6	2 lb	14.30	14.30	00125

CLASS ASSIGNMENT SHEET #1

B. Information

1. The sliced, peeled apricots were not included on arrival. Indicate the adjustment necessary on the invoice.

2. The case of okra was wet on delivery. Delivery of this item was refused. Indicate the adjustment necessary on the invoice.

3. The diet ginger ale was delivered but not ordered. This item was returned. Indicate the adjustment necessary on the invoice.

4. The order states "tomato juice," and tomato puree was delivered. The tomato puree was returned. Indicate the adjustment necessary on the invoice.

   (NOTE: Usually you will not have this many mistakes on one invoice, but it is important that you learn to adjust the invoice before signing it. Check quality *and* quantity before signing.)

MENU PLANNING, PURCHASING, RECEIVING, AND STORAGE
UNIT I

ANSWERS TO CLASS ASSIGNMENT SHEET

Invoice

Slot	Quan.	Cntr.	Description	Pack	Size	Price	Extension	Prod. Code
34	1	CS	SR Oranges Mandarin	24	2 1/2	44.50	44.50	36830
514	1	CS	SR Apricots Sliced Peeled - short	6	10	29.95	29.95	01040
724	1	CS	CR Tomato Puree - Refused Ordered Tom. Jce.	6	10	22.00	22.00	15065
253	2	CS	SH Diet Cola	24	8 oz	6.70	13.40	19521
263	1	CS	SH Diet Ginger Ale - Not Ordered	24	8 oz	6.70	6.70	19547
273	1	CS	SH Diet Lemon Lime	24	8 oz	6.70	6.70	19463
Stock	Out	CS	SR Tomato Juice Diet	24	2	17.90	1CS	16998
241	1	CS	SR Redisol No 4	1	10 lb	16.50	16.50	45997
*** Frozen Follows ****								
14	1	CS	SR Okra Cut Breaded IQF - Refused Case wet	1	20 lb	14.19	14.19	77784
376	1	CS	PL Apple Sticks	6	2 lb	14.30	14.30	00125

FPW - 25-C

MENU PLANNING, PURCHASING, RECEIVING, AND STORAGE
UNIT I

CLINICAL ASSIGNMENT SHEET #1 — CHECK FOOD QUALITY

NAME ______________________________ SCORE ______________

The ultimate test of quality in food service is the acceptance or rejection of foods by the patient. Avoiding plate waste is increasingly important today to reduce food cost, as well as to satisfy customers. Visiting patients and checking temperatures of food are ways to ensure good acceptance of meals.

PART I

Using the temperature standards in the Information Sheet, Section V, check the food quality in your facility by taking temperatures of the foods and beverages. Fill in the chart by recording the temperature of all foods and beverages on a duplicate tray you send to accompany one served to a patient.

HOT FOODS AND BEVERAGES	Temp. When Served in Dietary	Temp. When Served to Patient	Palatable Temperature Standard	Satisfactory (S) Unsatisfactory (U)

COLD FOOD AND BEVERAGES	Temp. When Served in Dietary	Temp. When Served to Patient	Palatable Temperature Standard	Satisfactory (S) Unsatisfactory (U)

CLINICAL ASSIGNMENT SHEET #1

PART II

Accompany the registered dietitian and dietetic assistant as they make their rounds at mealtime. Observe three patients' reactions to the menu. Record their comments on the evaluation form below.

EVALUATION FORM FOR FOOD QUALITY

"S" for satisfactory — "U" for unsatisfactory

	PATIENT		
	#1	#2	#3
Appearance of food			
Tenderness			
Taste			
Hot-food temperature			
Cold-food temperature			
Overall food quality			

PATIENT COMMENTS:

#1 ____________________

____

#2 ____________________

____

#3 ____________________

____

CLINICAL ASSIGNMENT SHEET #1

PART III

A. Did you identify a problem with your food quality? ______________________

If so, what is your main concern? ______________________

____

B. How do your food temperatures compare to the standards? ______________________

____

C. What changes do you intend to make to improve the situation? ______________________

____

____

____

COMMENTS:

____

____

____

____

FPW - 29-C

MENU PLANNING, PURCHASING, RECEIVING, AND STORAGE
UNIT I

CLINICAL ASSIGNMENT SHEET #2 — CHECK DELIVERY OF FOOD, USING ORDER AND INVOICE

NAME ______________________________ SCORE ______________

Accepting poor-quality products or incorrect amounts can mean financial loss to the facility. Generally, receiving goods is the responsibility of the dietetic assistant, dietetic technician, or storeroom clerk, but in their absence, the food production worker needs to be prepared to receive goods. With the supervision of the registered dietitian, and using the order and the invoice, check delivery of food. The actual procedure will vary from facility to facility, but the basic steps are always the same. The dietitian will complete the following checklist to evaluate your competency.

CHECKLIST FOR RECEIVING GOODS

Procedures

"S" for satisfactory — "U" for unsatisfactory

	S	U
Checked accuracy of delivery		
Counted items received		
Compared what was delivered against purchase order		
Checked perishables first		
Refused items of poor quality		
Opened cases of canned items to check quality		
Checked produce quality		
Checked frozen-goods quality		
Weighed meat deliveries		
Checked invoice before signing it		
Signed invoice and retained a copy		
Transferred food and supplies promptly to appropriate storage areas		
Dated all items		

COMMENTS:

____

____

MENU PLANNING, PURCHASING, RECEIVING, AND STORAGE
UNIT I

ANSWERS TO CLINICAL ASSIGNMENT SHEETS

Clinical Assignment Sheet #1 — Evaluated to the satisfaction of the clinical instructor

Clinical Assignment Sheet #2 — Evaluated to the satisfaction of the clinical instructor

MENU PLANNING, PURCHASING, RECEIVING, AND STORAGE
UNIT I

TEST

NAME ____ SCORE ________________

1. Match to their correct definitions terms associated with menu planning, purchasing, receiving, and storage. Write the correct numbers in the blanks provided.

   ______a. Agreeable or pleasing to the taste

   ______b. Plan of foods that allows choices between several items offered

   ______c. Set of carefully planned menus that are repeated at definite intervals

   ______d. Plan of foods to be used in a given period of time

   ______e. Food items that have long shelf life

   ______f. Feature characterized by excellence

   ______g. Food items with limited storage life; items subject to early spoilage

   1. Cycle menu
   2. Menu
   3. Palatable
   4. Perishables
   5. Quality
   6. Selective menu
   7. Staples

2. Select from the following list uses of a well-planned menu. Write an "X" in the blank before each correct answer.

   ______a. Indicating proper portions

   ______b. Including palatable foods that complement each other

   ______c. Providing nutritionally adequate meals

   ______d. Providing monotony

   ______e. Indicating preparation methods desired

   ______f. Assisting in controlling costs

3. Select from the following list factors determined by the menu. Write an "X" in the blank before each correct answer.

   ______a. Equipment needed

   ______b. Nutritional adequacy

   ______c. Quality of food served

TEST

______d. Types of food to be purchased

______e. Palatable serving temperature

______f. Personnel needed

______g. Costs

______h. Budget

4. Select from the following list advantages of cycle menus. Write an "X" in the blank before each correct answer.

______a. Equipment can be better utilized

______b. Menu-planning time is increased

______c. Quality of food products can be improved through practice

______d. Purchasing is more complex

______e. Menus can be more carefully planned

______f. Work loads can be fairly distributed

______g. Labor costs are reduced

______h. Plate-waste studies make it possible to eliminate unpopular foods

5. State three methods of checking food quality.

a. ____

b. ____

c. ____

6. Name six factors that affect palatability, three from each category.

a. Appearance

1) ____

2) ____

3) ____

TEST

b. Flavor

1) ______________________________

2) ______________________________

3) ______________________________

7. Name three factors in determining purchasing needs.

a. ______________________________

b. ______________________________

c. ______________________________

8. Select from the following list proper receiving procedures. Write an "X" in the blank before each correct answer.

______a. Date all items

______b. Count packages of meat

______c. Check accuracy of delivery

______d. Transfer food and supplies to appropriate storage areas

______e. Check foods on hand

______f. Refuse items of poor quality

______g. Obtain delivery person's name

______h. Sign invoice and retain a copy

9. Name important factors in storage of perishables.

a. ______________________________

b. ______________________________

TEST

10. Describe proper storage procedures for food and supplies.

    a. Dry food storage — ____

    ____

    ____

    ____

    b. Refrigerator/freezer storage — ____________________________

    ____

    ____

    ____

    c. Nonfood supplies storage — ________________________________

    ____

    ____

    ____

    ____

(NOTE: Test questions 11-13 list the assignment sheets. They are an important part of this test. If they have not been completed, check with your instructor.)

11. Indicate adjustments necessary on invoice.

12. Check food quality.

13. Check delivery of food, using order and invoice.

MENU PLANNING, PURCHASING, RECEIVING AND STORAGE
UNIT I

ANSWERS TO TEST

(NOTE: It may be helpful to use your blank test to make a test key. The points designated in parentheses are intended to be guidelines and should be adapted to meet the needs of each teaching/learning situation. The point total for the entire test is 228. The point total for questions 1-10 is 128; the point total for questions 11-13 is 100.)

1. (14 points)

   a. 3
   b. 6
   c. 1
   d. 2
   e. 7
   f. 5
   g. 4

2. (12 points)

   a, b, c, e, f

3. (14 points)

   a, b, d, f, g, h

4. (16 points)

   a, c, e, f, h

5. (9 points)

   Answer should include any three of the following

   a. Tasting product before serving
   b. Judging appearance of food
   c. Checking meat and vegetables for tenderness
   d. Checking desired temperatures with thermometer
   e. Surveying patients for food acceptance

ANSWERS TO TEST

6. (18 points)

   Answer should include any three from each of the following categories

   a. Appearance

      1) Color

      2) Consistency

      3) Arrangement

      4) Size of portion

      5) Shape or form

   b. Flavor

      1) Temperature

      2) Seasoning

      3) Texture

      4) Odor

      5) Degree of doneness

      6) Wholesomeness or safety of food

7. (3 points)

   Answer should include any three of the following

   a. Menu

   b. Available storage

   c. Budget and cost control

   d. Quality

   e. Quantity

8. (16 points)

   a, c, d, f, h

ANSWERS TO TEST

9. (2 points)

   a. Proper temperature

   b. Proper humidity

10. (24 points)

    Description should include the following

    a. Dry food storage

       1) Arrange items systematically
       2) Follow first-in, first-out (FIFO) policy
       3) Provide good air circulation
       4) Maintain proper temperature
       5) Store unripe fruit and vegetables in dry storage until they reach a good-quality, edible stage
       6) Keep storage area clean

    b. Refrigerator/freezer storage

       1) Maintain proper temperature
       2) Provide good air circulation
       3) Store items only in "food grade" containers
       4) Cover all items
       5) Store raw foods or thawing foods on bottom racks
       6) Label and date items
       7) Use proper procedures for leftovers

    c. Nonfood supplies storage

       1) Store in separate area from food supplies and/or food preparation areas
       2) Keep supplies well marked
       3) Use supplies cautiously

ANSWERS TO TEST

11. Evaluated to the satisfaction of the class instructor (20 points)

12. Evaluated to the satisfaction of the clinical instructor (30 points)

13. Evaluated to the satisfaction of the clinical instructor (50 points)

FOOD PREPARATION EQUIPMENT
UNIT II

UNIT OBJECTIVE

After completing this unit, the student should be able to operate and clean equipment that most food production employees use. This knowledge will be shown by completing assignment sheet, job sheets, and unit test with a minimum score of 85 percent.

SPECIFIC OBJECTIVES

After completing this unit, the student should be able to

1. Define terms associated with food preparation equipment.
2. Identify food preparation tools and utensils.
3. Match food preparation tools and utensils to their correct uses.
4. Identify equipment used by most food production employees.
5. Select from a list safety requirements for operators of hazardous equipment.
6. State rules for safe use of knives.
7. Evaluate adherence to equipment safety precautions.
8. Demonstrate the ability to
    a. Operate a mixer.
    b. Clean a mixer.
    c. Operate a slicer.
    d. Clean a slicer.
    e. Operate a vertical cutter mixer.
    f. Clean a vertical cutter mixer.
    g. Operate a food chopper.
    h. Clean a food chopper.
    i. Operate a manual meat grinder.
    j. Clean a manual meat grinder.

OBJECTIVE SHEET

k. Operate a steamer.
l. Clean a steamer.
m. Operate a steam-jacketed kettle.
n. Clean a steam-jacketed kettle.
o. Operate a conventional oven.
p. Clean a conventional oven.
q. Operate a convection oven.
r. Clean a convection oven.
s. Operate a range.
t. Clean a range.
u. Operate a deep fat fryer.
v. Clean a deep fat fryer (electric).
w. Clean a deep fat fryer (gas).
x. Operate a grill.
y. Clean a grill.
z. Operate a broiler.
aa. Clean a broiler.
bb. Clean a baker's table.
cc. Use a French knife.
dd. Use a butcher's steel.

FOOD PREPARATION EQUIPMENT
UNIT II

SUGGESTED ACTIVITIES

I. Suggested activities

   A. Order films to supplement unit.

      1. *Kitchen Safety: Preventing Machine Injuries.* Color, 16 mm, 10 minutes, National Educational Media, 1981. Available from National Educational Media, Inc., 15760 Ventura Boulevard, Encino, California 91436. (Rental fee $35.00 for two days; study kits $20.00.)

      2. *Care and Cleaning of Kitchen Equipment.* Color, 16 mm, 12 minutes, National Educational Media, 1981. Available from National Educational Media, Inc., 15760 Ventura Boulevard, Encino, California 91436. (Rental fee $40.00 for two days; study kits $20.00.)

   B. Provide students with objective sheet.

   C. Provide students with information, assignment, and job sheets.

   D. Discuss unit and specific objectives.

   E. Discuss information and assignment sheets.

   F. Demonstrate and discuss procedures outlined in job sheets.

   G. Develop appropriate learning activities for special needs students.

   H. Arrange for a tour to a large institution that has additional equipment not presented in this unit.

      EXAMPLES: Rotary oven, Qualheim cutter, donut machine, tilting braising pan, electric vegetable peeler, pie or pizza dough roller

   I. Review the general operating procedures for equipment in *Food Service Worker,* Section D, Unit II.

   J. Discuss the use of various pieces of equipment used in the students' places of work.

   K. Have two students do a skit on all the wrong ways to handle a knife; then let the class point out the mistakes and review the principles of knife safety.

      (CAUTION: If a real knife is used, be sure that it is protected by a guard.)

   L. Give test.

   M. Reteach if necessary.

SUGGESTED ACTIVITIES

II. Instructional materials

  A. Objective sheet

  B. Suggested activities

  C. Information sheet

  D. Clinical Assignment Sheet #1 — Evaluate Adherence to Equipment Safety Precautions

  E. Answers to clinical assignment sheet

  F. Clinical job sheets

    1. Clinical Job Sheet #1 — Operate a Mixer
    2. Clinical Job Sheet #2 — Clean a Mixer
    3. Clinical Job Sheet #3 — Operate a Slicer
    4. Clinical Job Sheet #4 — Clean a Slicer
    5. Clinical Job Sheet #5 — Operate a Vertical Cutter Mixer
    6. Clinical Job Sheet #6 — Clean a Vertical Cutter Mixer
    7. Clinical Job Sheet #7 — Operate a Food Chopper
    8. Clinical Job Sheet #8 — Clean a Food Chopper
    9. Clinical Job Sheet #9 — Operate a Manual Meat Grinder
    10. Clinical Job Sheet #10 — Clean a Manual Meat Grinder
    11. Clinical Job Sheet #11 — Operate a Steamer
    12. Clinical Job Sheet #12 — Clean a Steamer
    13. Clinical Job Sheet #13 — Operate a Steam-Jacketed Kettle
    14. Clinical Job Sheet #14 — Clean a Steam-Jacketed Kettle
    15. Clinical Job Sheet #15 — Operate a Conventional Oven
    16. Clinical Job Sheet #16 — Clean a Conventional Oven
    17. Clinical Job Sheet #17 — Operate a Convection Oven
    18. Clinical Job Sheet #18 — Clean a Convection Oven
    19. Clinical Job Sheet #19 — Operate a Range

SUGGESTED ACTIVITIES

20. Clinical Job Sheet #20 — Clean a Range
21. Clinical Job Sheet #21 — Operate a Deep Fat Fryer
22. Clinical Job Sheet #22 — Clean a Deep Fat Fryer (Electric)
23. Clinical Job Sheet #23 — Clean a Deep Fat Fryer (Gas)
24. Clinical Job Sheet #24 — Operate a Grill
25. Clinical Job Sheet #25 — Clean a Grill
26. Clinical Job Sheet #26 — Operate a Broiler
27. Clinical Job Sheet #27 — Clean a Broiler
28. Clinical Job Sheet #28 — Clean a Baker's Table
29. Clinical Job Sheet #29 — Use a French Knife
30. Clinical Job Sheet #30 — Use a Butcher's Steel

G. Test

H. Answers to test

III. Unit references

A. Grimes, Vici, and Jerald Chesser. *Food Service: Production and Service.* Stillwater, Oklahoma: State Department of Vocational and Technical Education/Curriculum and Instructional Materials Center, 1977.

B. Mario, Thomas. *Quantity Cooking.* Westport, Connecticut: The AVI Publishing Company, Inc., 1978.

FOOD PREPARATION EQUIPMENT
UNIT II

INFORMATION SHEET

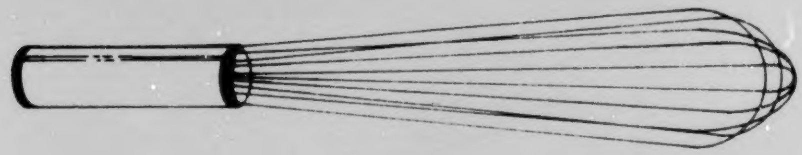
I. Terms and definitions

- A. Convection — Transfer of heat by moving masses of air
- B. Calrod — Electric heating element

II. Food preparation tools and utensils

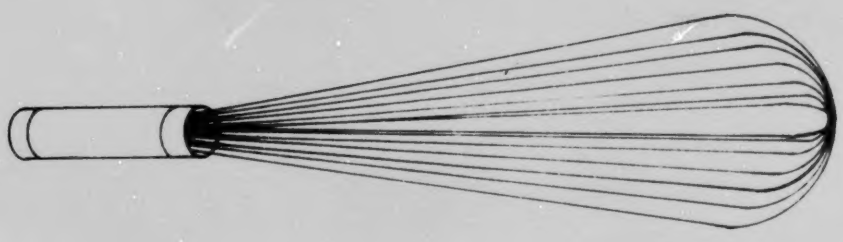
- A. Wire whips (Figures 1 and 2)
    - 1. French

FIGURE 1



- 2. Piano

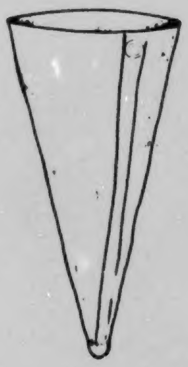
FIGURE 2



B. Pastry bag (Figure 3)

(NOTE: Pastry bags are available in various sizes.)

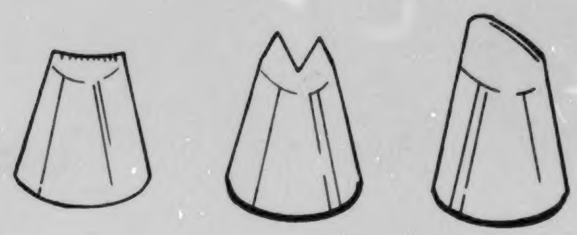
FIGURE 3



C. Pastry tips (Figure 4)

(NOTE: Pastry tips are available in various sizes and designs.)

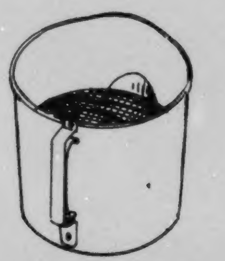
FIGURE 4



D. Sifter (Figure 5)

(NOTE: Sifters are available in various sizes and designs.)

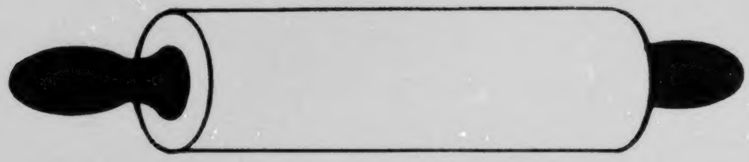
FIGURE 5



INFORMATION SHEET

E. Rolling pin (Figure 6)

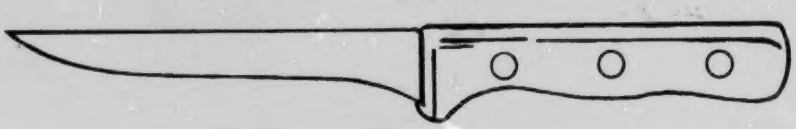
FIGURE 6



F. Knives (Figures 7-12)

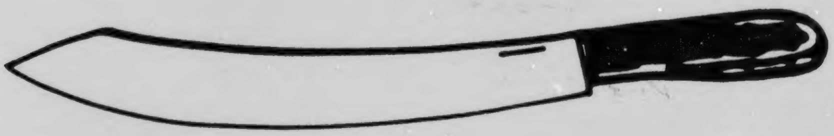
1. Boning

FIGURE 7



2. Butcher

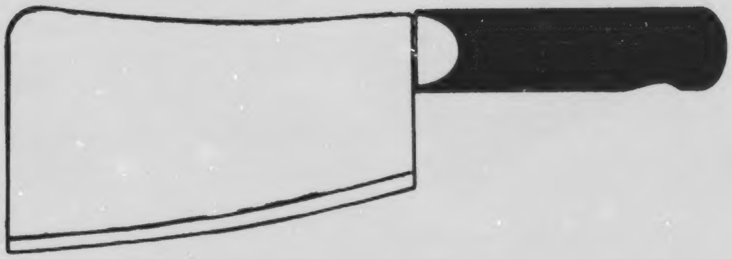
FIGURE 8



INFORMATION SHEET

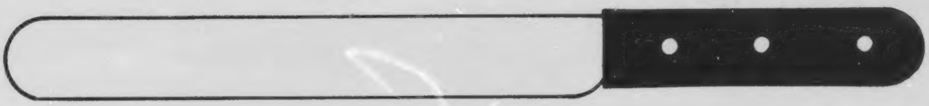
3. Cleaver

FIGURE 9



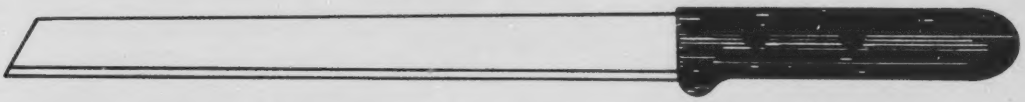
4. Roast beef slicer

FIGURE 10



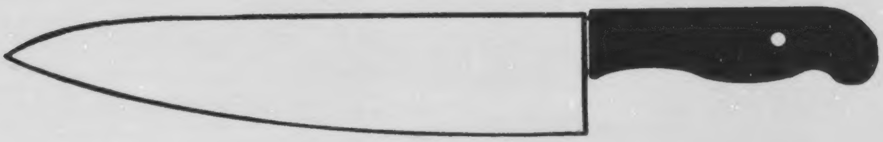
5. Ham slicer

FIGURE 11



6. French

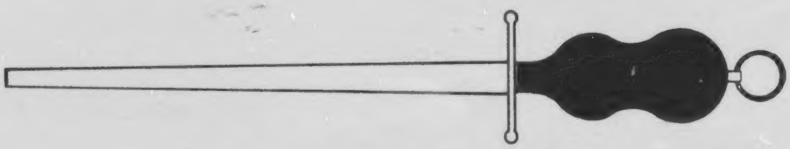
FIGURE 12



INFORMATION SHEET

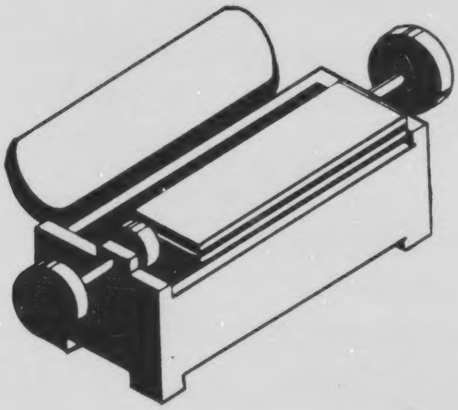
G. Butcher's steel (Figure 13)

FIGURE 13



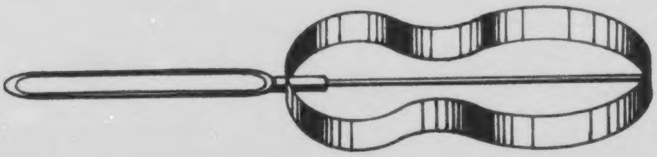
H. Hand stone (Figure 14)

FIGURE 14



I. Hand vegetable peeler or parer (Figure 15)

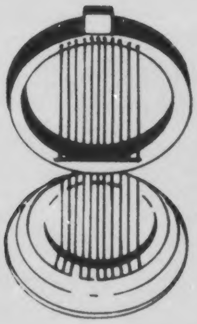
FIGURE 15



INFORMATION SHEET

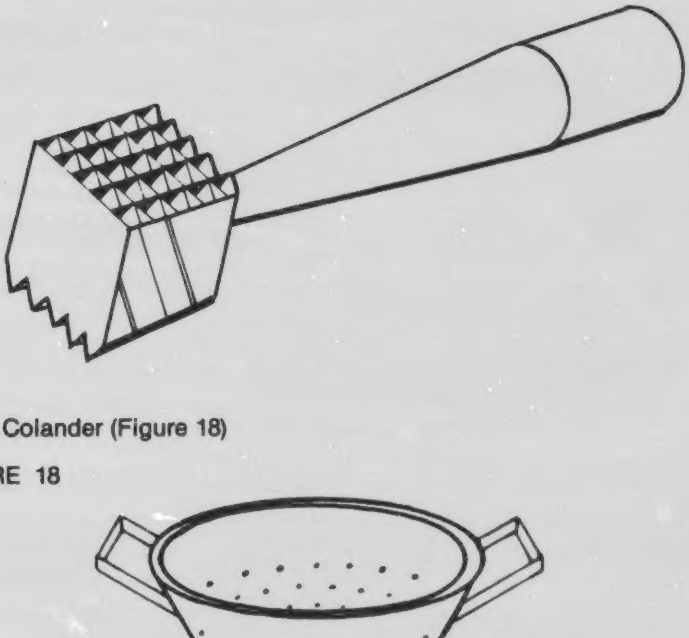
J. Egg slicer (Figure 16)

FIGURE 16



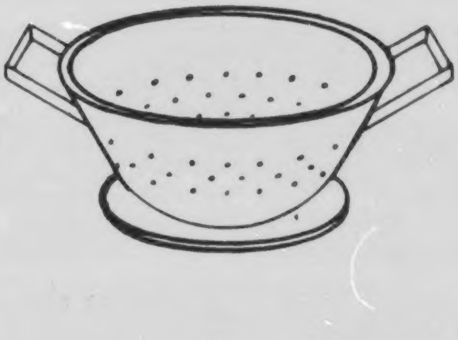
K. Hand meat tenderizer (Figure 17)

FIGURE 17



L. Colander (Figure 18)

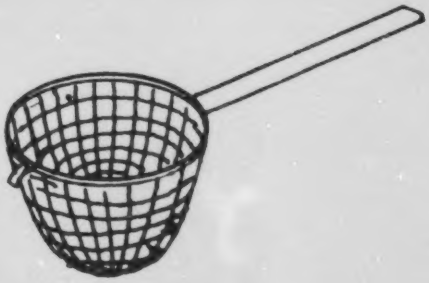
FIGURE 18



INFORMATION SHEET

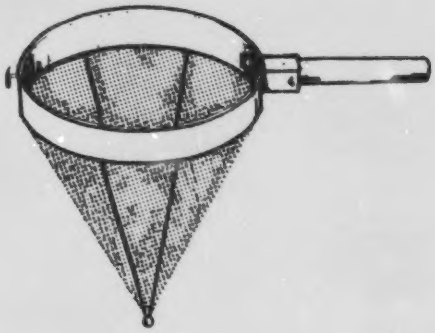
M. Strainer (Figure 19)

FIGURE 19



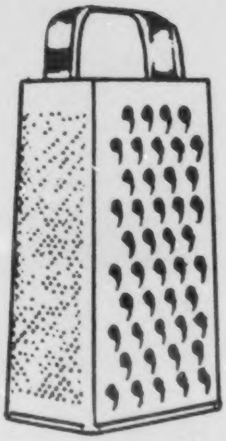
N. China cap (Figure 20)

FIGURE 20



O. Grater (Figure 21)

FIGURE 21



INFORMATION SHEET

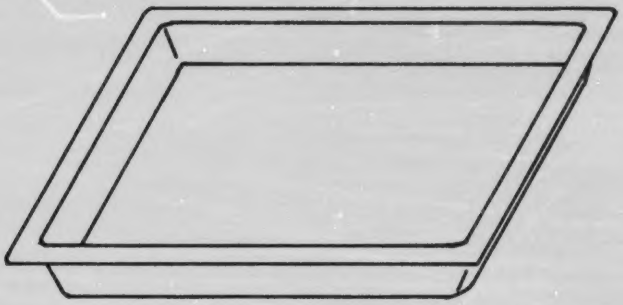
P. Steam table pans (Figures 22-25)

(NOTE: Steam table pans are also referred to as *counter pans.* They are available in other sizes and depths.)

1. Full

EXAMPLES: $11\frac{7}{8}''$ x $19\frac{7}{8}''$ x $2\frac{1}{2}''$; $7\frac{3}{4}$ quart capacity

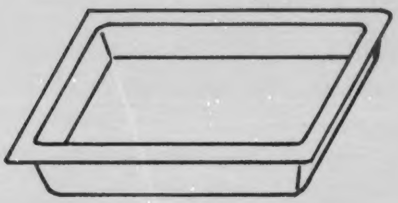
FIGURE 22



2. Half

EXAMPLES: $12\frac{5}{8}''$ x $10\frac{3}{8}''$ x $2\frac{1}{2}''$; $4\frac{1}{4}$ quart capacity

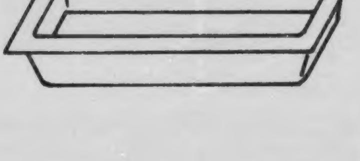
FIGURE 23



3. One-third

EXAMPLES: $12\frac{5}{8}''$ x $6\frac{7}{8}''$ x $2\frac{1}{2}''$; 3 quart capacity

FIGURE 24



INFORMATION SHEET

4. One-fourth

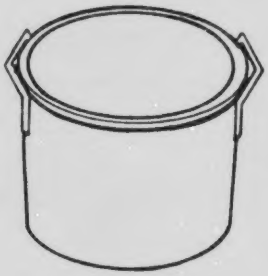
EXAMPLES: 10³/₈" × 6³/₈" × 2¹/₂"; 2¹/₂ quart capacity

FIGURE 25

Q. Stockpot (Figure 26)

(NOTE: Stockpots are available in various sizes.)

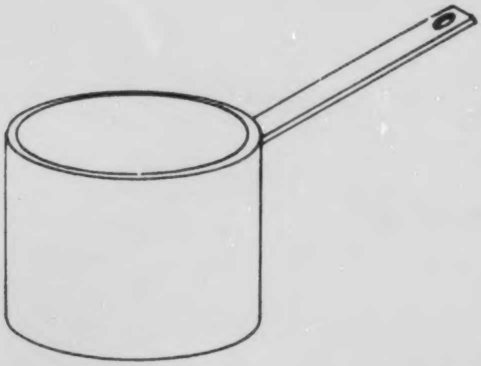
FIGURE 26



R. Saucepan (Figure 27)

(NOTE: Saucepans are available in various sizes.)

FIGURE 27

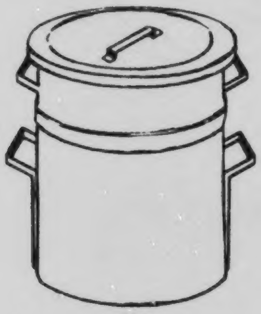


INFORMATION SHEET

S. Double boiler (Figure 28)

(NOTE: Double boilers are available in various sizes.)

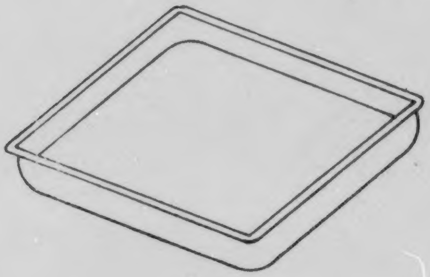
FIGURE 28



T. Baking pan (Figure 29)

(NOTE: Baking pans are available in various sizes.)

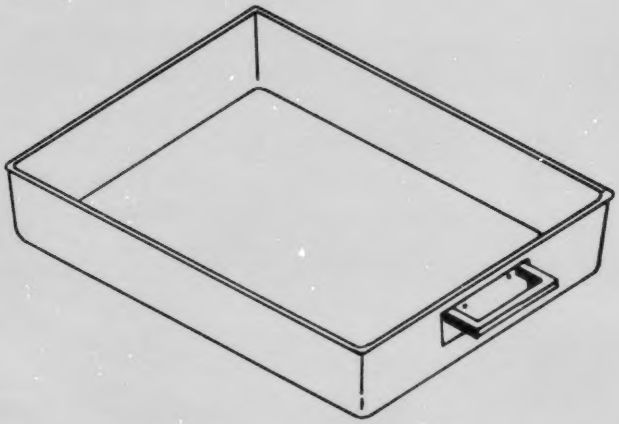
FIGURE 29



INFORMATION SHEET

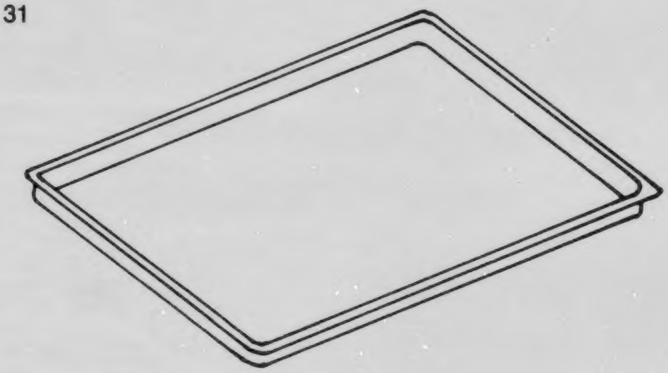
U. Roasting pan (Figure 30)

FIGURE 30



V. Sheet pan (Figure 31)

FIGURE 31



III. Food preparation tools and utensils and their uses

A. Wire whips (French and piano) — Whipping food

(NOTE: French whips are made of rigid wire. Piano whips are made of flexible wire.)

B. Pastry bag — Holding icing, whipped topping, or fillings while decorating or filling

C. Pastry tips — Making different decorations and designs; attach to pastry bags

D. Sifter — Sifting flour and sugar

E. Rolling pin — Rolling dough to desired thickness

INFORMATION SHEET

F. Knives

1. Boning — Cutting bones out of meat
2. Butcher — Cutting steaks
3. Cleaver — Chopping bones
4. Roast beef slicer — Slicing roast beef
5. Ham slicer — Slicing ham
6. French — Chopping, mincing, and dicing

G. Butcher's steel — Maintaining sharp edges on knives

H. Hand stone — Sharpening knives

I. Hand vegetable peeler or parer — Peeling or paring outer skins from fruits and vegetables

(NOTE: Valuable nutrients lie directly under the skin in many fruits and vegetables. These may be lost if peeling is too thick.)

J. Egg slicer — Cutting hard-cooked eggs uniformly

K. Hand meat tenderizer — Pounding meat so that connective tissues are broken down

L. Colander — Draining liquids from foods

M. Strainer — Straining foods

EXAMPLE: Straining broth

N. China cap — Straining foods or liquids

EXAMPLE: Draining canned fruit

O. Grater — Grating or shredding food into different-sized pieces

P. Steam table pan — Cooking and serving various foods

Q. Stockpot — Cooking food on top of range

R. Saucepan — Cooking small amounts of food on top of range

S. Double boiler — Cooking foods that scorch easily

EXAMPLE: Foods containing milk such as cream soups

T. Baking pan — Baking foods

EXAMPLES: Ham, turkey

INFORMATION SHEET

U. Roasting pan — Roasting meats

V. Sheet pan — Baking foods

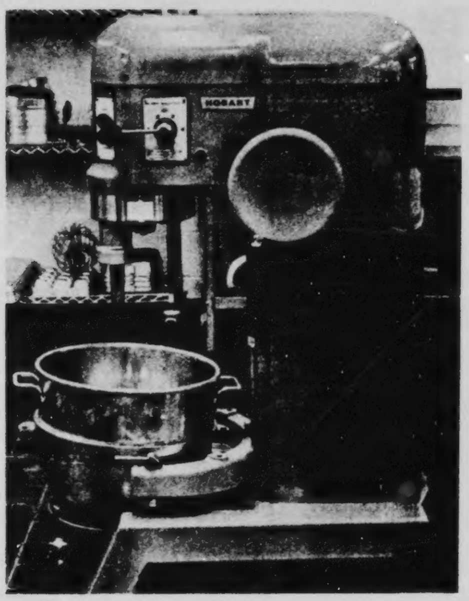
EXAMPLES: Cookies, eclairs, chicken breasts

IV. Equipment used by most food production employees

A. Mixer (Figure 32)

(NOTE: Mixers are available in various sizes.)

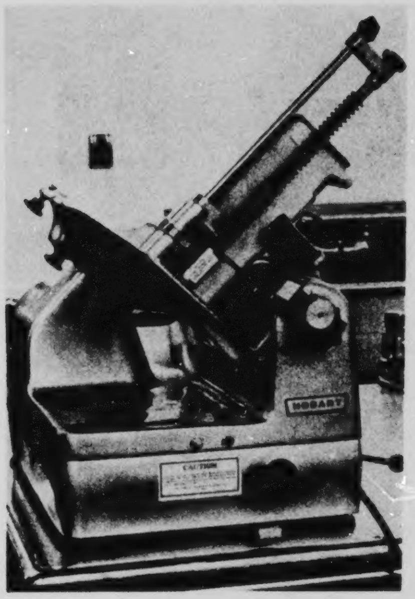
FIGURE 32



INFORMATION SHEET

B. Slicer (Figure 33)

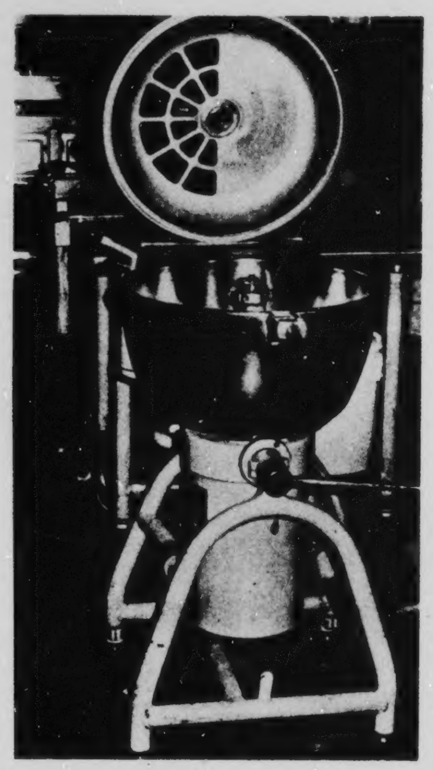
FIGURE 33


HOBART
CAUTION

INFORMATION SHEET

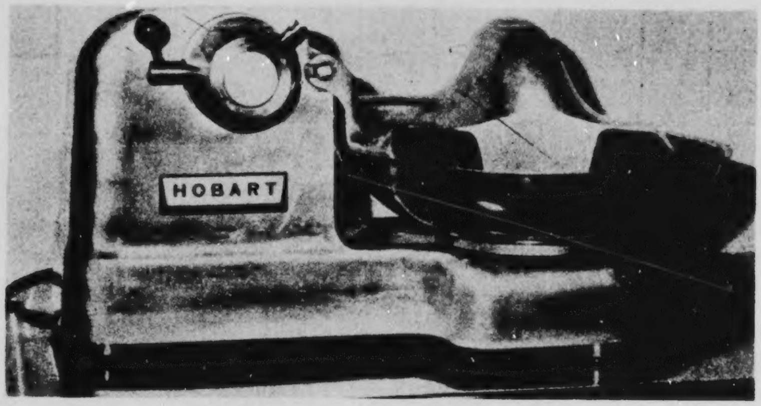
C. Vertical cutter mixer (VCM) (Figure 34)

FIGURE 34



D. Food chopper (Buffalo chopper) (Figure 35)

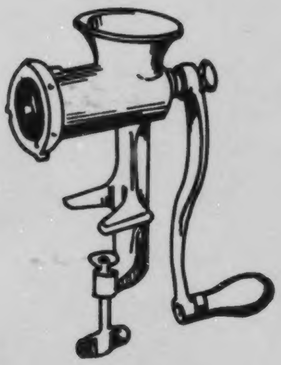
FIGURE 35



INFORMATION SHEET

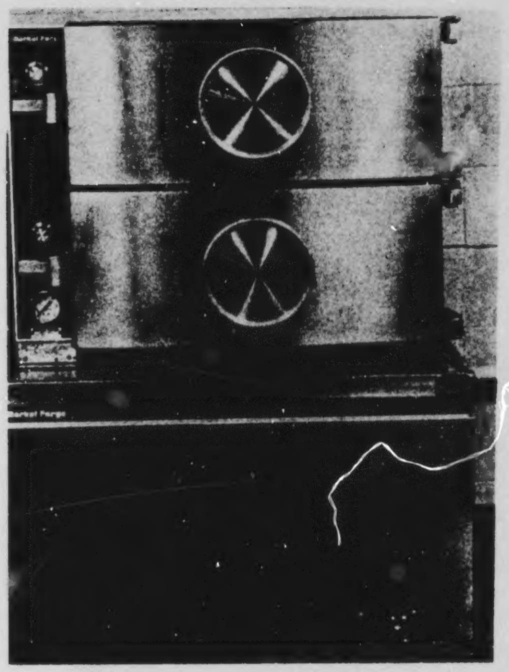
E. Manual meat grinder (Figure 36)

FIGURE 36



F. Compartment steamer (Figure 37)

FIGURE 37



INFORMATION SHEET

G. Steam-jacketed kettle (Figures 38 and 39)

FIGURE 38

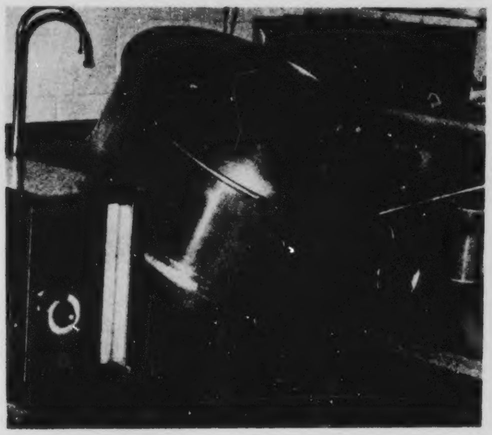
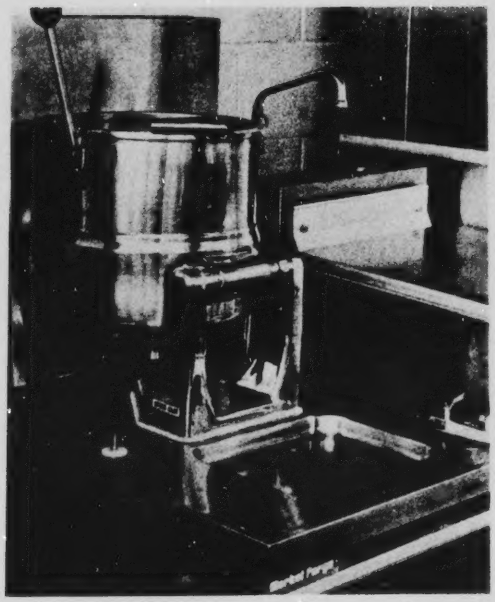
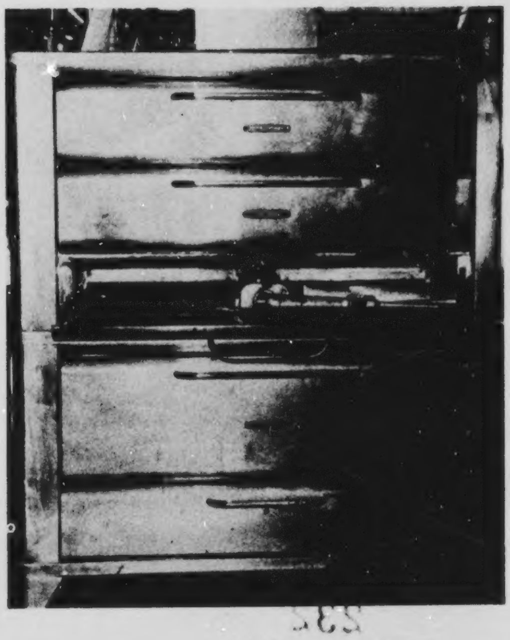


FIGURE 39



H. Conventional oven (Figure 40)

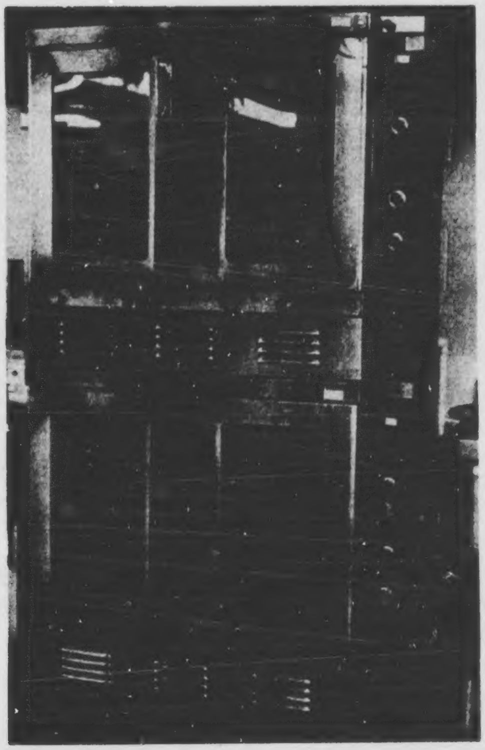
FIGURE 40



INFORMATION SHEET

I. Convection oven (Figure 41)

FIGURE 41

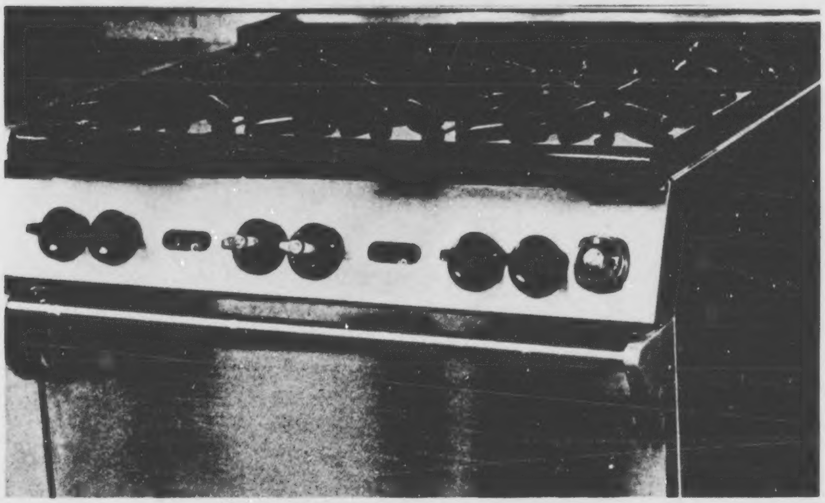


INFORMATION SHEET

J. Range (Figure 42)

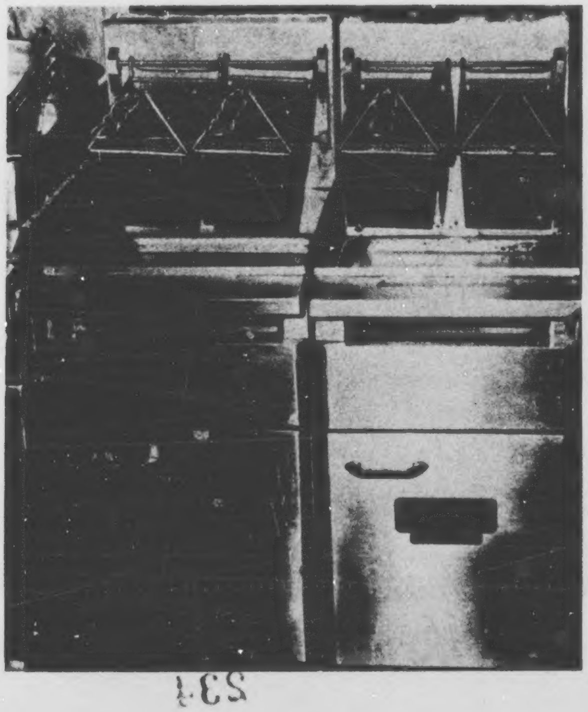
(NOTE: Ranges can have two types of tops: grid tops and hot tops. The range pictured is a grid-top range.)

FIGURE 42



K. Deep fat fryer (Figure 43)

FIGURE 43



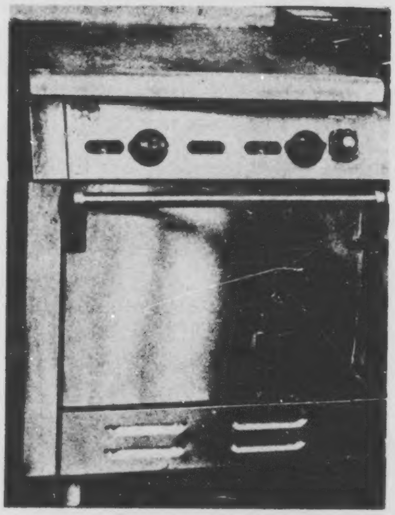
INFORMATION SHEET

L. Broiler (Figure 44)

FIGURE 44

M. Grill (Figure 45)

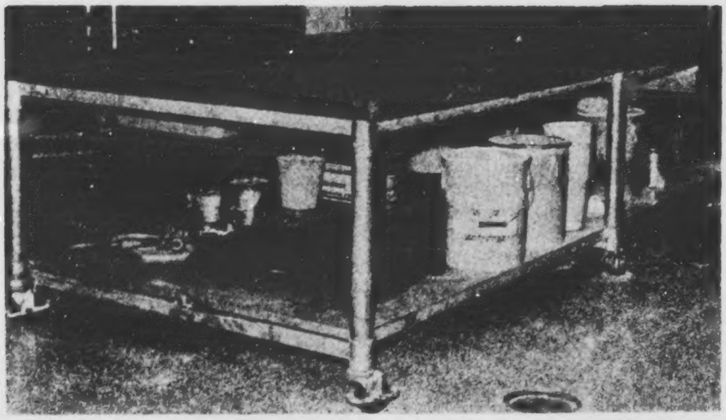
FIGURE 45



INFORMATION SHEET

N. Baker's table (Figure 46)

FIGURE 46



V. Safety requirements for operators of hazardous equipment

- A. Must be trained in using equipment
- B. Must have observed the setup, operation, and cleanup of the equipment
- C. Must not leave equipment unattended while operating
- D. Should be familiar with safety mechanisms
- E. Should be alert, with attention focused on the equipment and operation
- F. Must be able to use equipment to the satisfaction of the supervisor

VI. Rules for safe use of knives

- A. Use a sharp knife
- B. Grasp knife by handle, never by blade
- C. If you must walk with a knife, hold blade down, top of knife blade forward
- D. Make sure that knife handle is dry and free of grease
- E. Do not cut food on a cluttered work surface
- F. Keep your eyes on the knife and food being cut
- G. Control the knife; never use excessive speed
- H. Do not place knife in sink of water where it cannot be seen
- I. Do not try to catch a falling knife

INFORMATION SHEET

J. Keep knives sharp and store in a rack

(NOTE: Never store knives loose in a drawer with other utensils.)

FPW - 69-C

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL ASSIGNMENT SHEET #1 — EVALUATE ADHERENCE TO EQUIPMENT SAFETY PRECAUTIONS

NAME ______________________________ SCORE ______________

After using a piece of equipment many times, employees often get careless and bypass the built-in safety devices on equipment or ignore safe operating procedures.

Review the general operating procedures from *Food Service Worker,* Section D, Unit II, and the safety requirements in this unit. Observe the use of hazardous equipment in your institution and answer the following questions.

A. What equipment in your department do you consider hazardous?

____

____

____

____

B. Choose one piece of hazardous equipment in your department and answer the following questions about it.

1. Which piece of equipment did you choose to investigate?

   ____

2. Does your department have written operating procedures for this equipment?

   ____

3. Are the operating procedures demonstrated by the supervisor to new employees?

   ____

4. Are all safety features of the equipment in working order? ______________

   If not, explain. ______________________________________

   ____

   ____

CLINICAL ASSIGNMENT SHEET #1

5. Do employees use the equipment properly? ____________________

   If not, what mistakes did you observe? ____________________

   ____

   ____

6. What suggestions would you make to improve the safe operation of this piece of equipment?

   ____

   ____

   ____

   ____

FOOD PREPARATION EQUIPMENT
UNIT II

ANSWERS TO CLINICAL ASSIGNMENT SHEET

Evaluated to the satisfaction of the clinical instructor

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #1 — OPERATE A MIXER

I. Equipment and supplies

   A. Mixer

   B. Agitator

   C. Mixing bowl

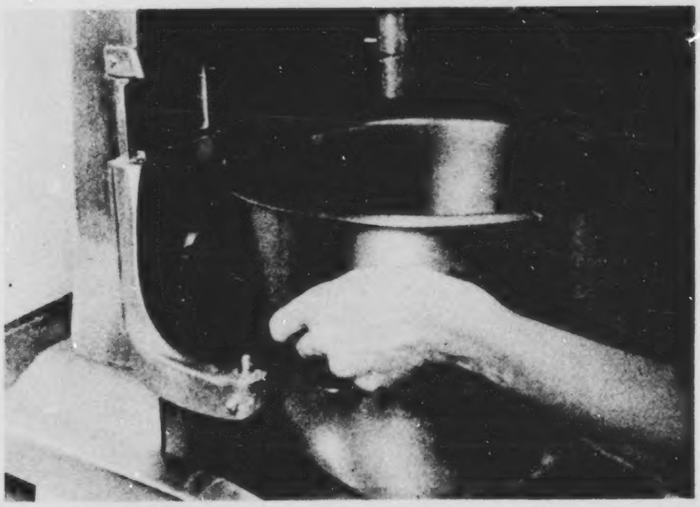
   D. Food to be mixed

II. Procedure

   A. Place bowl of desired size into position (Figure 47)

   (NOTE: Smaller saddle attachments are available for smaller bowls.)

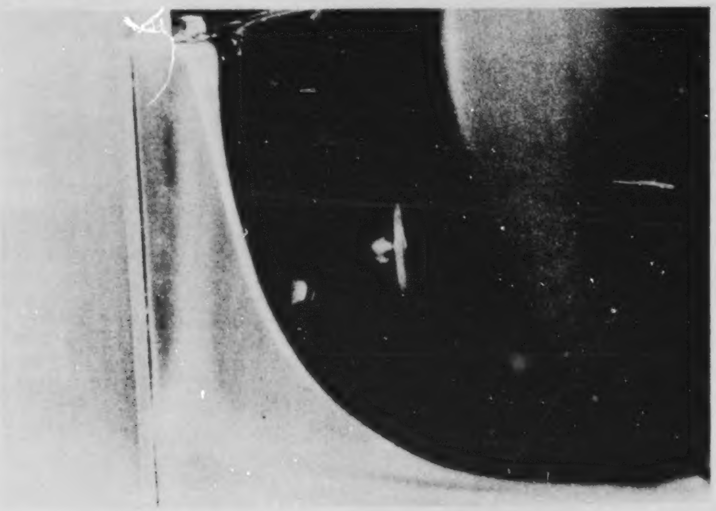
FIGURE 47



CLINICAL JOB SHEET #1

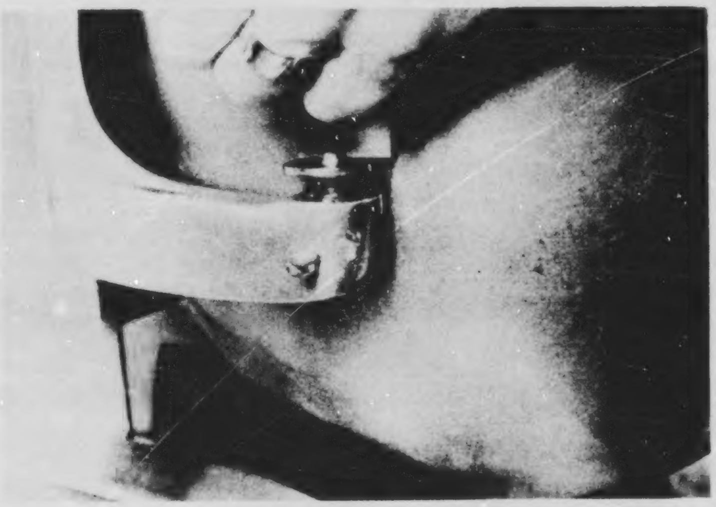
B. Guide knob on back of mixing bowl into socket (Figure 48)

FIGURE 48



C. Settle holes on side of mixing bowl down over knobs at front of saddle (Figure 49)

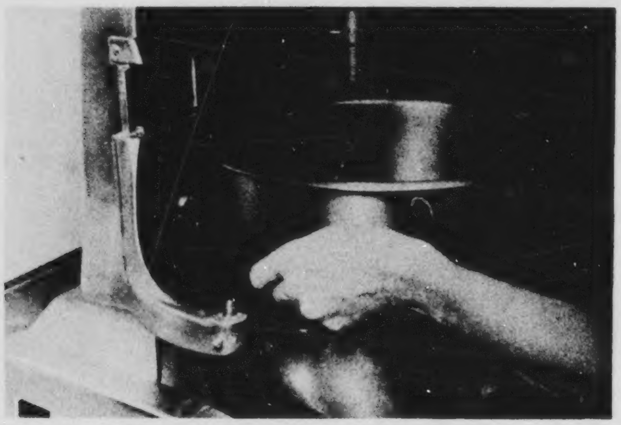
FIGURE 49



CLINICAL JOB SHEET #1

D. Lower bowl to lowest level on slideway (Figure 50)

FIGURE 50

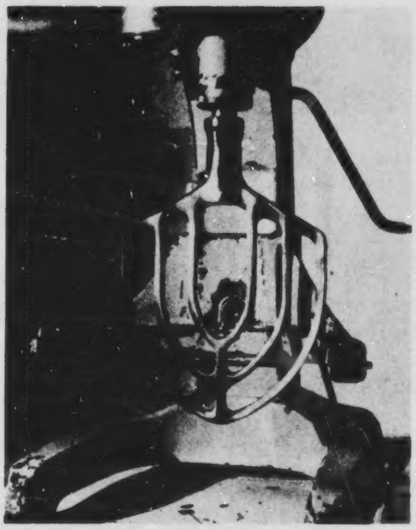


E. Select proper agitator

1. Flat beater (Figure 51)
    a. Use for general mixing
    b. Use for mixing batters
    c. Use for whipping potatoes

    (NOTE: Do not use flat beater for heavy doughs.)

FIGURE 51

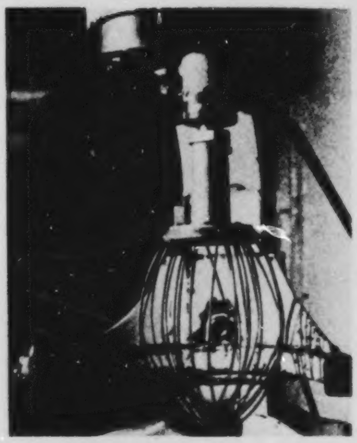


CLINICAL JOB SHEET #1

2. Wire whip (Figure 52)
    a. Use to incorporate air into light mixtures
    b. Use for light and fast operations

       EXAMPLES: Meringues, whipped toppings

FIGURE 52



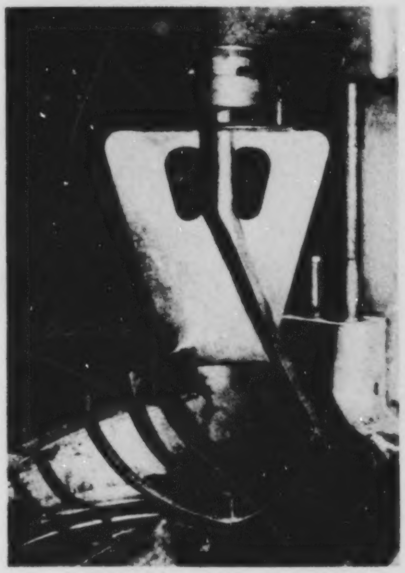
3. Dough hook — Use for heavy doughs such as breads and rolls (Figure 53)

FIGURE 53

CLINICAL JOB SHEET #1

4. Pastry knife — Use to combine shortening with flour as in mixing biscuits, pie crusts, and shortcakes (Figure 54)

FIGURE 54



F. Slip agitator onto shaft

G. Lock into place

H. Lift bowl into position

(NOTE: If agitator does not touch the bottom of the bowl, the mixer is ready for use.)

I. Lower bowl

J. Select speed

K. Place food to be mixed in bowl

L. Raise bowl back to mixing position

M. Push motor start button

(CAUTION: Never stick hand or utensil into bowl during operation.)

N. Stop machine; scrape down the sides of bowl, then resume mixing

O. Turn motor off when mixing is complete

CLINICAL JOB SHEET #1

P. Lower bowl

(NOTE: Do not lower bowl until agitator motion is stopped.)

Q. Remove agitator

R. Remove food from bowl

(NOTE: If wheels are available, the bowl may be lowered to wheels and taken to preparation area.)

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #2 — CLEAN A MIXER

I. Equipment and supplies

  A. Cleaning solution

    (NOTE: Prepare cleaning solution according to established procedure in your facility.)

  B. Stiff-bristled brush

  C. Clean cloths

  D. Mixer

  E. Hot water

II. Procedure

  A. After each use

    1. Turn machine off and remove plug
    2. Remove bowl
    3. Remove agitator
    4. Take bowl and agitator to pot-and-pan sink for cleaning
    5. Clean bowl and agitator in cleaning solution using stiff-bristled brush
    6. Rinse bowl and agitator with hot water
    7. Let bowl and agitator air dry

  B. Daily

    1. Scrub beater shaft with cleaning solution and stiff-bristled brush
    2. Scrub bowl saddle with cleaning solution and stiff-bristled brush
    3. Scrub base and under head with cleaning solution and stiff-bristled brush
    4. Rinse with hot water
    5. Dry with clean cloth
    6. Return cleaning equipment and supplies to proper storage area

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #3 — OPERATE A SLICER

I. Equipment and supplies

- A. Slicer
- B. Portion scale
- C. Food to be sliced

II. Procedure

(CAUTION: Slicer should never be used when knife guard is not in position. Always keep hands and utensils away from blade when unit is operating.)

- A. Check to make sure that slicer is unplugged.

  (CAUTION: Always keep plug out of socket when unit is not in operation.)

- B. Place chute on slide carriage
- C. Screw bolts until tight
- D. Place center plate in position
- E. Place large knife guard in position
- F. Place food on chute and cover with holder
- G. Move arm to check free movement
- H. Adjust thickness indicator to desired number

  (NOTE: Food should be kept in center of carrier.)

- I. Plug in slicer

  (CAUTION: Always check knife guard before putting plug in socket.)

- J. Turn machine on
- K. Slice two or three slices of product
- L. Turn machine off

  (CAUTION: Do not place hands near food being sliced or near food holder until blade action has stopped.)

ct5

CLINICAL JOB SHEET #3

M. Examine food for proper size and accurate weight

N. Readjust indicator if necessary

O. Slice desired number of portions of product

(NOTE: Manual machines must be pushed with a rhythmic motion. Automatic carriages should never be left unattended.)

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #4 — CLEAN A SLICER

I. Equipment and supplies

- A. Slicer
- B. Detergent solution
- C. Cloth folded to several thicknesses
- D. Chemical sanitizer solution
- E. Clean cloths
- F. Clean, hot water

II. Procedure

(NOTE: This procedure should be performed after each use.)

- A. Turn off machine

  (CAUTION: Never turn slicer on when cleaning.)

- B. Remove plug from socket
- C. Set blade control to zero
- D. Turn knob at bottom of carriage to remove meat carriage
- E. Loosen knob at center of blade to remove top blade guard
- F. Take parts to the pot-and-pan sink
- G. Scrub parts
- H. Rinse parts
- I. Let parts air dry
- J. Wash blade and machine shell

  (CAUTION: Blade is exposed, so proceed with care.)

- K. Rinse blade
- L. Sanitize blade according to directions on chemical sanitizer

CLINICAL JOB SHEET #4

M. Allow blade to air dry

N. Replace front blade guard immediately after cleaning shell

(CAUTION: Never leave blade exposed longer than necessary. Slicer blades unprotected by guards increase likelihood of cuts.)

O. Tighten blade guard knob

P. Replace meat carriage

Q. Tighten meat carriage knob

R. Return cleaning equipment and supplies to proper storage area

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #5 — OPERATE A VERTICAL CUTTER MIXER

I. Equipment and supplies

A. Vertical cutter mixer

B. Food to be mixed

II. Procedure

A. Place shaft through round hole in center of cover

B. Slip on handle

C. Fasten into position

D. Add food and water

(NOTE: Some vegetables require water to make them move more freely. Operator should follow manufacturer's directions for amount of water and product to be used in each mixing.)

E. Close cover

F. Lock cover

(NOTE: Most mixers will not operate while cover is open.)

G. Operate machine for desired time

(NOTE: These machines usually have two speeds. The switch handle should be moved firmly when changing speeds. Speed and time of operation of this machine require *strict* attention. For example, lettuce for tossed salad on low speed normally requires one second of operation.)

H. Turn machine off

I. Remove food

J. Remove knife blades

K. Remove remainder of food

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #6 — CLEAN A VERTICAL CUTTER MIXER

I. Equipment and supplies

- A. Vertical cutter mixer
- B. Cleaning solution

  (NOTE: Prepare cleaning solution according to established procedures in your facility.)

- C. Stiff-bristled brush
- D. Large pail or floor drain
- E. Hose
- F. Dry cloth

II. Procedure

- A. Turn machine off
- B. Remove plug from socket
- C. Open inspection cover on top

  (CAUTION: Wait until blades have stopped before proceeding.)

- D. Remove mixing baffle
  1. Loosen nut on top of cover and withdraw handle
  2. Release cover lock
  3. Raise cover to upright position
  4. Withdraw mixing baffle and shaft
- E. Remove plastic inspection cover and gasket
- F. Remove blade shaft
  1. Turn blade shaft lock clockwise to remove
  2. Pull up on blade shaft

CLINICAL JOB SHEET #6

G. Take parts to pot-and-pan sink

(CAUTION: Leave blade shaft on drainboard until ready for washing and rinsing.)

H. Scrub parts

I. Rinse parts and allow to air dry on clean surface

J. Fill bowl half full of hot cleaning solution

K. Scrub bowl, inside and outside of cover, side of bowl, and frame

L. Tilt bowl to remove water

M. Rinse inside and outside of bowl

N. Wipe outside of bowl

O. Let inside of bowl air dry

P. Return bowl to upright position and lock into place

Q. Reassemble parts

   1. Replace blade shaft
   2. Replace gasket
   3. Replace mixing baffle

R. Close cover

S. Replace plastic inspection cover and gasket

T. Replace handle

U. Replace and tighten nut on top of cover

V. Leave cover closed but do not lock it

W. Partially open inspection cover

X. Return cleaning equipment and supplies to proper storage area

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #7 — OPERATE A FOOD CHOPPER

I. Equipment and supplies

- A. Food chopper
- B. Food to be chopped

II. Procedure

- A. Turn machine off
- B. Unplug machine
- C. Place bowl in position
- D. Rotate bowl counterclockwise to stop
- E. Place knife on knife shaft
- F. Screw hand knob into position to hold knives securely
- G. Place blade guide comb into correct position

  (NOTE: Knives must move through comb freely. Turn hand knob to check position.)

- H. Close lid
- I. Turn cover lock knob to correct angle to lock
- J. Plug in machine
- K. Fill bowl one-third full of product
- L. Turn on switch

  (NOTE: More food may be added to machine bowl. If the food is not cut uniformly, too much food is in bowl.)

  (CAUTION: Do not put hands under cover.)

- M. Turn machine off

  (CAUTION: Do not lift cover until knives have stopped moving.)

- N. Turn cover lock knob to correct angle to open

CLINICAL JOB SHEET #7

O. Open cover to upright position

P. Unscrew hand knob

Q. Slide off knife assembly

R. Remove food from bowl

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #8 — CLEAN A FOOD CHOPPER

I. Equipment and supplies

  A. Food chopper

  B. Cleaning solution

  (NOTE: Prepare cleaning solution according to established procedure in your facility.)

  C. Stiff-bristled brush

  D. Clean, damp cloth

  E. Clean, dry cloth

II. Procedure

  A. Turn off switch

  B. Unplug cord

  C. Wait for blades to stop

  D. Turn cover lock knob to correct angle to open

  E. Raise cover to upright position

  F. Remove blade guide comb

    1. Lift up

    2. Place in bowl

  G. Remove blade

    1. Remove knob on blade shaft

    2. Grasp blade at the dull surface near the shaft

  H. Place blade in bowl

  (CAUTION: Handle blade with care.)

  I. Lift cover up and off

CLINICAL JOB SHEET #8

J. Remove bowl by turning to the left and lifting up

K. Take parts to pot-and-pan sink

(CAUTION: Leave blade on drainboard until ready for washing and rinsing.)

L. Scrub shell

M. Rinse shell

N. Wash parts of chopper

O. Rinse parts

P. Allow to air dry

Q. Reassemble chopper

  1. Replace bowl
  2. Replace cover and leave in upright position
  3. Replace blade guide and blade
  4. Close cover and lock

R. Return cleaning equipment and supplies to proper storage area

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #9 — OPERATE A MANUAL MEAT GRINDER

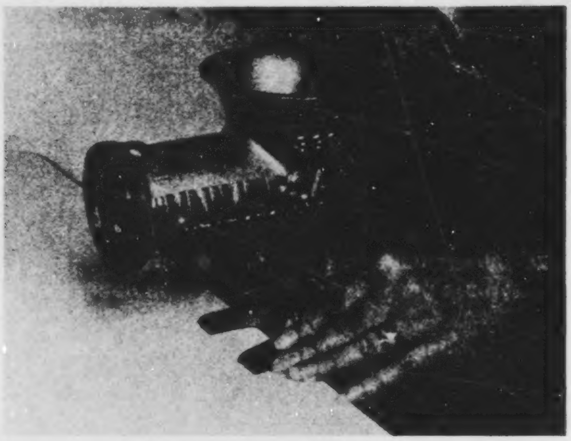
I. Equipment

- A. Manual meat grinder
- B. Pan or bowl
- C. Tamp
- D. Meat to be ground

II. Procedure

- A. Attach meat grinder to edge of table or cabinet (Figure 55)

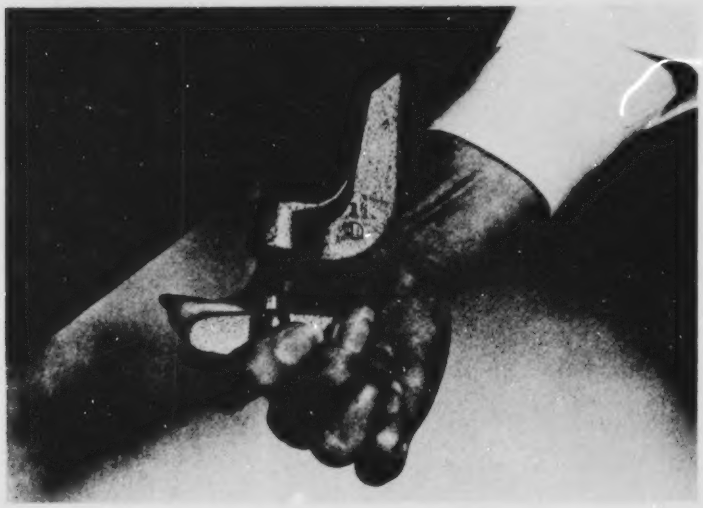
FIGURE 55



CLINICAL JOB SHEET #9

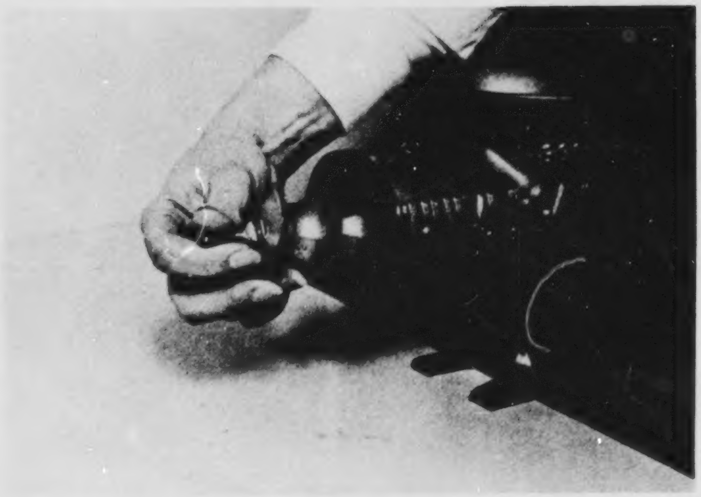
B. Screw hand bolt tight against cabinet (Figure 56)

FIGURE 56



C. Insert auger (Figure 57)

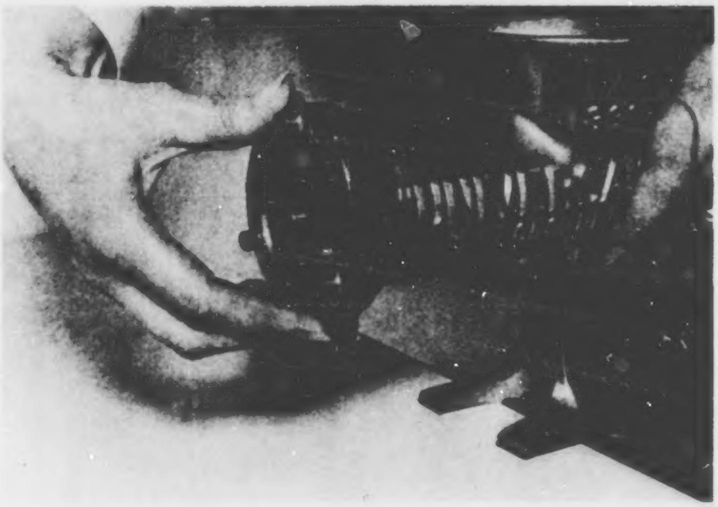
FIGURE 57



CLINICAL JOB SHEET #9

D. Attach desired size grinding plate (Figure 58)

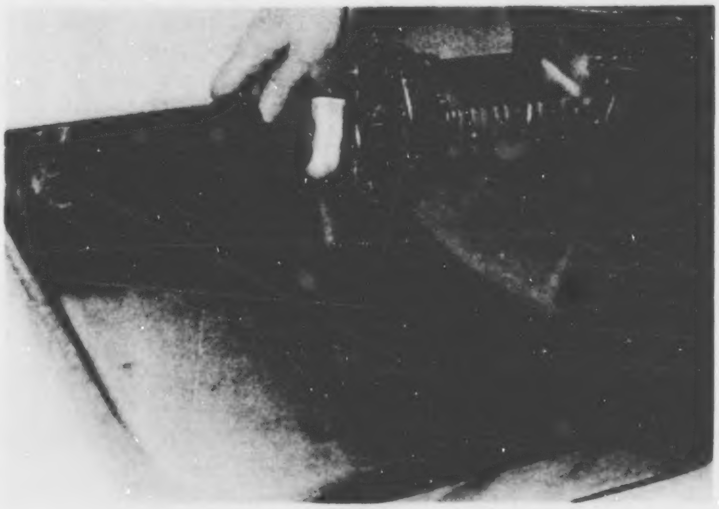
FIGURE 58



E. Tighten grinding plate bolt

F. Place pan under grinder to catch meat (Figure 59)

FIGURE 59

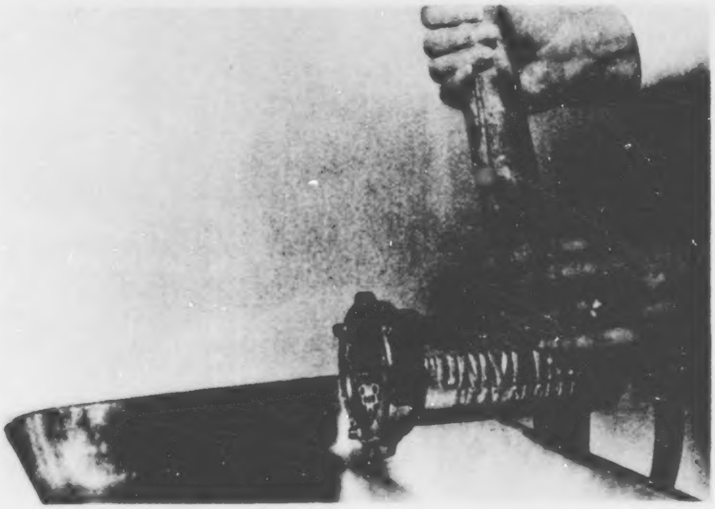


CLINICAL JOB SHEET #9

G. Place meat in opening

H. Push meat into grinder with tamp (Figure 60)

FIGURE 60



I. Turn crank to grind meat

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #10 — CLEAN A MANUAL MEAT GRINDER

I. Equipment and supplies

  A. Cleaning solution

  (NOTE: Prepare cleaning solution according to the established procedure in your facility.)

  B. Stiff-bristled brush

  C. Meat grinder

II. Procedure

  A. Remove grinding plate bolt

  B. Remove grinding plate

  C. Remove auger

  D. Unscrew grinder from cabinet

  E. Take all parts to pot-and-pan sink

  F. Scrub all parts with stiff-bristled brush and cleaning solution

  G. Rinse

  (CAUTION: A chemical sanitizer should be used, or rinse water should be at least 180°F, to sanitize grinder properly.)

  H. Allow to air dry

  I. Return cleaning equipment and supplies to proper storage area

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #11 — OPERATE A STEAMER

I. Equipment and supplies

  A. Steamer

  B. Appropriate sized steam table pan

  C. Food to be cooked

II. Procedure

  A. Place food in proper-sized pan according to recipe

  B. Open steamer door

  C. Place pan on shelf

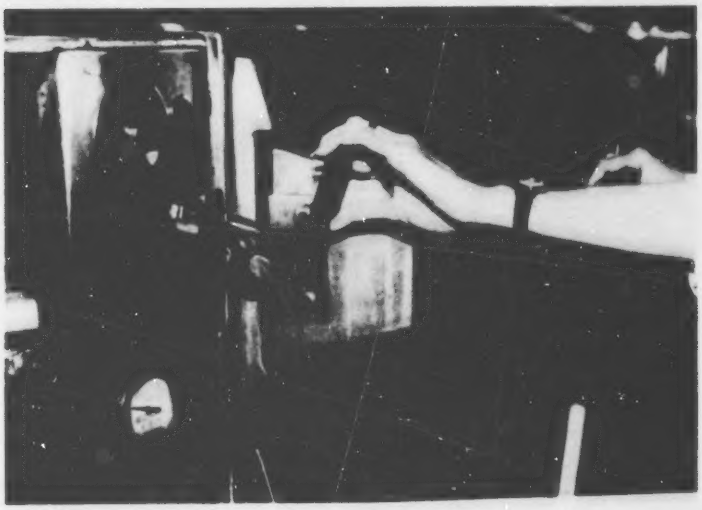
  D. Close door

  E. Lock door

    1. Wheel operation (Figures 61 and 62)

      a. Fasten door catch

FIGURE 61



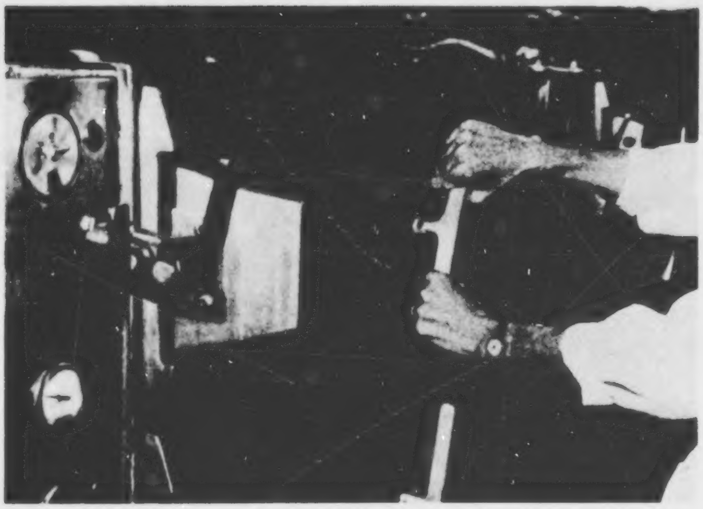
CLINICAL JOB SHEET #11

b. Push steam valve handle to front position

c. Revolve wheel at front in clockwise direction until compartment seals

(NOTE: Do not tighten the door wheel excessively. If steam leaks appear, the wheel should be tightened slightly.)

FIGURE 62



2. Safety shutoff valve

   a. Engage hasp with locking cam to the right

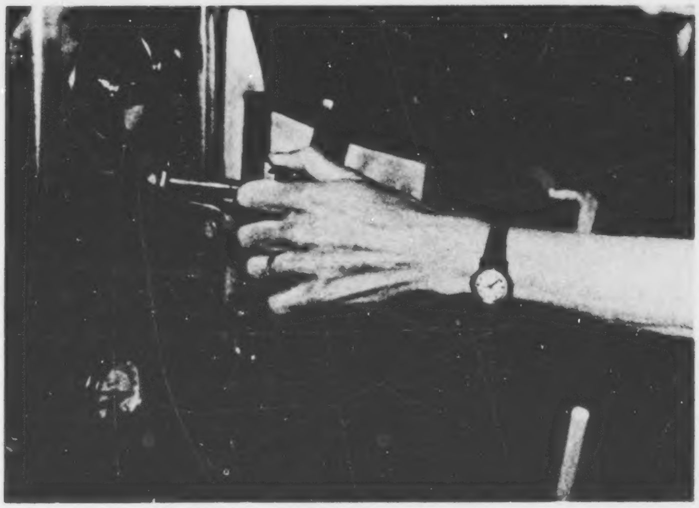
   b. Press cam against face of door

CLINICAL JOB SHEET #11

F. Turn on steam (Figure 63)

1. Wheel operation — Pull lever or turn knob

FIGURE 63



2. Safety shutoff valve — Final movement of lever automatically turns steam on

G. Set timer according to recipe

H. Reverse locking procedure after cooking process is completed

(CAUTION: After loosening wheel, let steam escape before opening door.)

I. Open door

J. Remove food

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #12 — CLEAN A STEAMER

I. Equipment and supplies

- A. Steamer
- B. Cleaning solution

  (NOTE: Prepare cleaning solution according to established procedures in your facility.)

- C. Stiff-bristled brush
- D. Gauge brush
- E. Clean cloths

II. Procedure

- A. Turn off steam
- B. Allow steamer to cool
- C. Open steamer
- D. Remove shelves
- E. Take shelves to pot-and-pan sink
- F. Scrub tops and bottoms of shelves
- G. Rinse
- H. Allow shelves to air dry on clean surface
- I. Scrub chambers
  - 1. Inside
  - 2. Outside
  - 3. Top
  - 4. Gaskets around door

CLINICAL JOB SHEET #12

J. Rinse chambers

K. Close steamer

L. Turn on for one minute

M. Turn off steamer

N. Open

O. Allow to air dry

P. Replace shelves

Q. Wipe off outside and top of steamer with clean, dry cloths

R. Leave doors open slightly

S. Return cleaning equipment and supplies to proper storage area

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #13 — OPERATE A STEAM-JACKETED KETTLE

I. Equipment and supplies

   A. Steam-jacketed kettle

   B. Food to be cooked

II. Procedure

   A. Adjust kettle to upright level position with hand crank or electric positioning control

   B. Fill kettle with food or water in which food is to be cooked

   (NOTE: Food or water should not exceed three-quarters of the capacity of the kettle. Preheat water if necessary.)

   C. Turn on steam valve

      1. Turn dial clockwise

      2. Open valve completely for the highest temperature

      3. Close valve partially for simmering

   D. Complete cooking according to directions in recipe

   E. Close steam valve

   F. Remove food to prevent overcooking

      1. Liquid may be drawn off through drain valve before food is removed

      2. Food may be poured if kettle tilts

      (CAUTION: Pour slowly to avoid burns from splashing.)

   G. Turn drain valve to correct angle to open

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #14 — CLEAN A STEAM-JACKETED KETTLE

I. Equipment and supplies

   A. Steam-jacketed kettle

   B. Cleaning solution

   (NOTE: Prepare cleaning solution according to established procedure in your facility.)

   C. Long-handled, stiff-bristled brush

   D. Clean, dry cloth

II. Procedure

   A. Turn off steam

   B. Allow kettle to cool

   C. Open drain

   D. Flush kettle

   E. Close drain

   F. Remove drain screen

   G. Fill kettle to cover highest food line with water

   H. Add cleaning solution

   I. Scrub kettle inside and outside

   J. Drain solution

      1. Open valve

      2. Tilt kettle

   K. Rinse kettle

CLINICAL JOB SHEET #14

L. Close drain

M. Replace drain screen

N. Allow inside of kettle to air dry

O. Wipe outside of kettle with clean, dry cloth

P. Close cover

(NOTE: Smaller pots may not have drains. Smaller or older pots may not have covers and should be turned over for storage.)

Q. Return cleaning equipment and supplies to proper storage area

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #15 — OPERATE A CONVENTIONAL OVEN

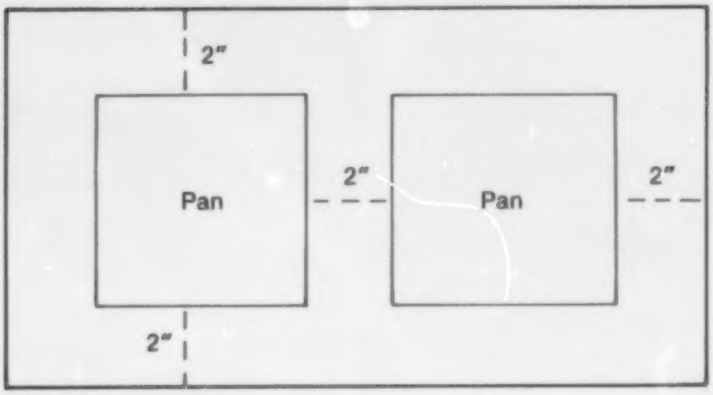
I. Equipment and supplies

- A. Conventional oven
- B. Appropriate pan for food to be cooked
- C. Food to be cooked

II. Procedure

- A. Turn temperature control switch to medium or high
- B. Turn thermostat to desired temperature
- C. Allow oven to preheat for ten minutes before placing food in oven
- D. Place food in pan and place pan in oven when proper temperature has been reached
- E. Load oven evenly (Figure 64)
  - 1. Pans should be 2 inches away from door
  - 2. Pans should be 2 inches away from each other
  - 3. Pans should be 2 inches away from walls of oven

FIGURE 64



- F. Cook as directed in recipe

(CAUTION: Do not rest heavy pans on open doors.)

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #16 — CLEAN A CONVENTIONAL OVEN

I. Equipment and supplies

- A. Long-handled metal scraper
- B. Cleaning solution

  (NOTE: Prepare cleaning solution according to established procedure in your facility.)
- C. Long-handled brush
- D. Oven cleaner
- E. Clean, dry cloths
- F. Gloves
- G. Stainless steel polish

II. Daily procedure

- A. Turn off oven
- B. Allow oven to cool
- C. Remove shelves
- D. Scrape burned particles from inside of oven
- E. Brush out inside of oven
- F. Brush shelf ledges and door crevice
- G. Replace shelves
- H. Wash outside of door
- I. Wash outside of frame
- J. Rinse
- K. Wipe dry

CLINICAL JOB SHEET #16

III. Weekly procedure

- A. Turn off oven
- B. Allow oven to cool
- C. Remove shelves
- D. Take shelves to pot-and-pan sink
- E. Spray shelves with oven cleaner

  (CAUTION: Follow directions on oven cleaner. Protect hands with gloves. Avoid breathing oven cleaner fumes.)
- F. Scrub shelves
- G. Rinse shelves
- H. Wipe shelves dry
- I. Spray oven with oven cleaner
- J. Scrub oven
- K. Scrub frame
- L. Rinse inside and outside of oven
- M. Allow to air dry
- N. Replace clean shelves
- O. Wipe on stainless steel polish with clean, dry cloth
- P. Return cleaning equipment and supplies to proper storage area

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #17 — OPERATE A CONVECTION OVEN

I. Equipment and supplies

- A. Convection oven
- B. Appropriate pan for food to be cooked
- C. Food to be cooked

II. Procedure

(NOTE: There are many different models of convection ovens. Check the manufacturer's directions for variances in operating procedures.)

A. Turn on oven

(NOTE: Some ovens have a fan that automatically comes on when the oven is turned on.)

B. Turn thermostat to desired temperature

(NOTE: Adjust temperature by decreasing 25°F to 50°F. Convection ovens tend to cook more quickly than conventional ovens.)

C. Turn on fan

(NOTE: Some items such as baked goods, cakes, and muffins should not be cooked in a convection oven with the fan on.)

D. Allow oven to preheat

E. Place food in pan and place pan in oven when proper temperature has been reached

F. Load oven evenly

(NOTE: Do not overload convection ovens because they will tend to cook unevenly.)

G. Cook as directed in recipe

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #18 — CLEAN A CONVECTION OVEN

I. Equipment and supplies

- A. Long-handled metal scraper
- B. Long-handled brush
- C. Cleaning solution

  (NOTE: Prepare cleaning solution according to established procedure in your facility.)

- D. Oven cleaner
- E. Clean, dry cloth
- F. Gloves
- G. Stainless steel polish

II. Daily procedure

- A. Turn off oven
- B. Allow oven to cool
- C. Remove shelves
- D. Scrape burned particles from inside of oven
- E. Brush out inside of oven
- F. Brush shelf ledges and door crevice
- G. Replace shelves
- H. Wash outside of door
- I. Wash outside of frame
- J. Rinse
- K. Wipe dry

CLINICAL JOB SHEET #18

III. Weekly procedure

A. Turn off oven

B. Allow oven to cool

C. Remove shelves

D. Take shelves to pot-and-pan sink

E. Spray shelves with oven cleaner

(CAUTION: Follow directions on oven cleaner. Protect hands with gloves. Avoid breathing oven cleaner fumes.)

F. Scrub shelves

G. Rinse shelves

H. Wipe shelves dry

I. Spray oven with oven cleaner

J. Scrub oven and fan blades

K. Scrub frame

L. Rinse inside and outside of oven

M. Allow to air dry

N. Replace clean shelves

O. Wipe on stainless steel polish with clean, dry cloth

P. Return cleaning equipment and supplies to proper storage area

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #19 — OPERATE A RANGE

I. Equipment and supplies

   A. Range

   B. Stockpot

   C. Food to be cooked

II. Procedure

   A. Hot top (range top)

   (NOTE: The uses for a hot top are varied. Simmering, stewing, holding, and warming are the most common uses.)

      1. Preheat to desired temperature

      2. Place stockpot on hot top

      3. Cook food as directed in recipe

   B. Burner grids

   (NOTE: Frying, sauteing, and stewing are the most common cooking methods on burners.)

      1. Place stockpot on grid

      2. Turn on burner to desired temperature according to recipe

      3. Cook food according to recipe

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #20 — CLEAN A RANGE

I. Equipment and supplies

   A. Putty knife

   B. Cleaning solution

      (NOTE: Prepare cleaning solution according to the established procedure in your facility.)

   C. Stiff-bristled brush

   D. Clean, damp cloth

   E. Salad oil

   F. Stainless steel polish

   G. Wire brush

   H. Dry cloth

II. Daily procedure

   (NOTE: If spills are wiped up as they occur, cleaning will be simplified.)

   A. Hot top

      1. Allow hot top to cool

      2. Loosen all burned particles with putty knife

      3. Scrub hot top with cleaning solution

         (NOTE: On an electric range, use only a very small amount of solution on the hot top to avoid getting the elements wet.)

      4. Clean back of hot top with cleaning solution

      5. Rinse

      6. Wipe dry

      7. Apply a light coat of salad oil as a rust preventive if necessary

CLINICAL JOB SHEET #20

B. Burner grids

1. Remove burner grids from top of range
2. Take grids to pot-and-pan sink
3. Scrub
4. Rinse
5. Wipe dry
6. Clean top of range
7. Replace burner grids on top of range

C. Outside of all ranges

1. Scrub front with cleaning solution
2. Scrub sides with cleaning solution
3. Scrub back with cleaning solution
4. Return cleaning equipment and supplies to proper storage area

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #21 — OPERATE A DEEP FAT FRYER

I. Equipment and supplies

   A. Deep fat fryer

   B. Fat for fryer

   C. Absorbent paper

   D. Serving pan with false bottom

   E. Tongs

   F. Food to be fried

II. Procedure

   A. Close grease outlet

   B. Fill fryer with fat to level line indicator

   C. Set thermostat to 250°F until fat is melted (about ten minutes)

   D. Set thermostat to desired temperature

   (CAUTION: Fat should not be heated over 400°F.)

   E. Place baskets on hook

   F. Fill baskets with food

      1. Fill no more than two-thirds full

      2. Drain foods that have been freshly battered before frying

      3. Fry foods together that are uniform in size

   G. Submerge baskets slowly into hot fat

   (CAUTION: Submerging must be done slowly. Moisture from food, especially frozen food, causes fat to foam, to splatter, and to bubble.)

   H. Shake baskets occasionally if food tends to stick together

   I. When food is done, lift baskets out of fat

CLINICAL JOB SHEET #21

J. Hang baskets on hook to drain (ten to fifteen seconds)

K. Remove food from baskets

   1. Pour food out

   2. Pick up food with tongs

L. Place food on absorbent paper or in pan with false bottom

M. Turn off heat as soon as frying is complete

(NOTE: During idle periods, the fryer thermostat should be set at 200°F.)

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #22 — CLEAN A DEEP FAT FRYER (ELECTRIC)

I. Equipment and supplies

A. Clean deep fat fryer container

B. Fat filter machine or container with filter

C. Cleaning solution

(NOTE: Prepare cleaning solution according to the established procedure in your facility.)

D. Stiff-bristled brush

E. Clean cloths

II. Procedure

(NOTE: This procedure should be done after each use.)

A. Allow fat to cool but not to solidify

B. Lift calrod unit from fat

C. Lock calrod unit into position

D. Pump fat from fryer through filter to clean container

E. Remove soiled container from fryer

F. Take container to pot-and-pan sink for cleaning

G. Rinse container and allow to air dry

H. Turn on fryer to high temperature

(NOTE: Calrod units are self-cleaning. However, the manufacturer's directions should be checked for individual cleaning times.)

I. Turn off fryer

J. Allow unit to cool

K. Scrub outside of unit

L. Rinse and wipe dry

CLINICAL JOB SHEET #22

M. Place clean container with fat into unit

N. Lower calrod unit into fat

O. Cover fryer

P. Return cleaning equipment and supplies to proper storage area

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #23 — CLEAN A DEEP FAT FRYER (GAS)

I. Equipment and supplies

   A. After each use or as needed

      1. Cheesecloth or paper filter
      2. Clean pot
      3. Cleaning solution

         (NOTE: Prepare cleaning solution according to the established procedure in your facility.)

      4. Long-handled, stiff-bristled brush
      5. Dry cloths

   B. Before changing to new fat

      1. Cans for grease disposal
      2. Waste container
      3. Cleaning solution
      4. Long-handled, stiff-bristled brush
      5. Rubber gloves
      6. Clean cloths

II. Procedure for after each use or as needed

   A. Allow fat to cool but not to solidify

   B. Drain and strain fat

      1. Secure cheesecloth on pot to form strainer
      2. Place pot below drain
      3. Open drain
      4. Close drain after all fat has been removed

CLINICAL JOB SHEET #23

- C. Fill deep fat fryer with hot cleaning solution
- D. Scrub inside and outside of unit
- E. Place large pot below drain
- F. Open drain
- G. Rinse fryer thoroughly with hot water
- H. Wipe dry
- I. Refill fryer with fat
- J. Cover fryer
- K. Return cleaning equipment and supplies to proper storage area

III. Procedure to use before changing to new fat

- A. Allow fat to cool but not to solidify
- B. Drain fat and dispose
- C. Flush unit thoroughly to remove all sediment
- D. Fill fryer with hot cleaning solution
- E. Turn on fryer
- F. Boil for thirty minutes
- G. Scrub inside of fryer
- H. Drain fryer
- I. Rinse unit thoroughly
- J. Refill unit with hot water
- K. Brush all inside surfaces
- L. Drain
- M. Rinse
- N. Dry thoroughly
- O. Fill unit with new fat
- P. Cover fryer
- Q. Return cleaning equipment and supplies to proper storage area

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #24 — OPERATE A GRILL

I. Equipment and supplies

- A. Grill
- B. Cooking oil
- C. Long-handled spatula
- D. Clean, dry cloth
- E. Food to be cooked

II. Procedure

- A. Preheat grill to 400°F
- B. Brush with thin film of cooking oil
- C. Allow oil to remain on grill for two minutes
- D. Wipe surplus oil from grill with clean, dry cloth
- E. Turn temperature dial to desired temperature
- F. Place food item on grill surface according to recipe
- G. Cook according to recipe directions

  (NOTE: Use long-handled spatula for turning foods. Be careful of splattering grease when turning foods. Scrape drippings to grease trap after each load.)

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #25 — CLEAN A GRILL

I. Equipment and supplies

- A. Grill
- B. Wire brush or flexible spatula
- C. Cloth
- D. Seasoning for grill

  EXAMPLE: Cooking oil
- E. Pumice stone, grill brick, or grill screen

II. Procedure

- A. Turn off grill
- B. Let grill cool
- C. Remove soil on grill by using flexible spatula
- D. Remove grease trap
- E. Take to pot-and-pan sink
- F. Wash and rinse grease trap
- G. Let grease trap air dry
- H. Wash sides and back of grill
- I. Rub grill with pumice stone, grill brick, or grill screen

  (NOTE: Rub with the grain of the metal.)
- J. Clean grill with a damp cloth

  (NOTE: Be sure to remove all particles left by pumice stone, grill brick, or grill screen.)
- K. Wipe grill dry
- L. Season grill
- M. Replace grease trap
- N. Return cleaning equipment and supplies to proper storage area

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #26 — OPERATE A BROILER

I. Equipment and supplies

- A. Broiler
- B. Food to be cooked

II. Procedure

- A. Preheat broiler to high temperature for fifteen minutes before using
- B. Adjust temperature control to desired temperature
- C. Rub grid with oil, if necessary, to prevent sticking
- D. Shake excess oil from food before placing on grid
- E. Place food on grid
- F. Locate grid at proper position for broiling according to degree of doneness desired
  1. Rare — 1 to 2 inches from heat
  2. Medium — 3 to 4 inches from heat
  3. Well done — 4 inches from heat

     (NOTE: If meat is to be cooked well done, it should be cooked slower and longer.)
- G. Broil meat on one side for half the cooking time

  (NOTE: Meat should be browned.)
- H. Season meat on cooked side
- I. Turn meat and brown on other side

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #27 — CLEAN A BROILER

I. Equipment and supplies

  A. Broiler

  B. Cleaning solution

  (NOTE: Prepare cleaning solution according to the established procedure in your facility.)

  C. Long-handled scraper

  D. Waste container for fat

  E. Stiff-bristled brush

  F. Clean, damp cloth

  G. Clean, dry cloth

II. Procedure

  A. Turn off broiler

  B. Allow broiler to cool

  C. Remove grid

    1. Pull lift lever to the left

    2. Move grid to the highest position

    3. Lift grid up and out

  D. Take grid to pot-and-pan sink

  E. Soak grid

  F. Scrape burned particles from inside of broiler

  G. Remove grease tray

  H. Empty grease into container for fat

  I. Take grease tray to pot-and-pan sink

CLINICAL JOB SHEET #27

J. Scrub broiler grid and grease tray

K. Rinse grid and grease tray

L. Allow to air dry

M. Wipe inside of broiler

(CAUTION: Do not wash calrod units because they are self cleaning.)

N. Wipe outside and top of broiler

O. Rinse inside, outside, and top of broiler

P. Wipe dry

Q. Replace grease tray

R. Replace grid

S. Lock grid into position

T. Test grid to see if it will roll out and lock

U. Push grid back into broiler unit

V. Return cleaning equipment and supplies to proper storage area

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #28 — CLEAN A BAKER'S TABLE

I. Equipment and supplies

- A. Scraper
- B. Dry cloth
- C. Cleaning solution

  (NOTE: Prepare cleaning solution according to the established procedure in your facility.)
- D. Stiff-bristled brush
- E. Chemical sanitizing solution

II. Procedure throughout the day and at end of day

- A. Scrape top
- B. Remove all scrapings and dry flour
- C. Wipe shelf
- D. Scrub top and sides
- E. Rinse
- F. Sanitize top
- G. Let air dry
- H. Wipe sides of table

III. Weekly procedure

- A. Use same procedure as above
- B. Remove all utensils from drawers
- C. Remove drawers from table
- D. Take drawers to pot-and-pan sink
- E. Scrub drawers inside and out

CLINICAL JOB SHEET #28

F. Rinse drawers

G. Dry drawers

H. Wipe drawer frames

I. Rinse drawer frames and wipe dry

J. Return drawers to table

K. Put clean utensils back into drawers

L. Return cleaning equipment and supplies to proper storage area

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #29 — USE A FRENCH KNIFE

I. Equipment and supplies

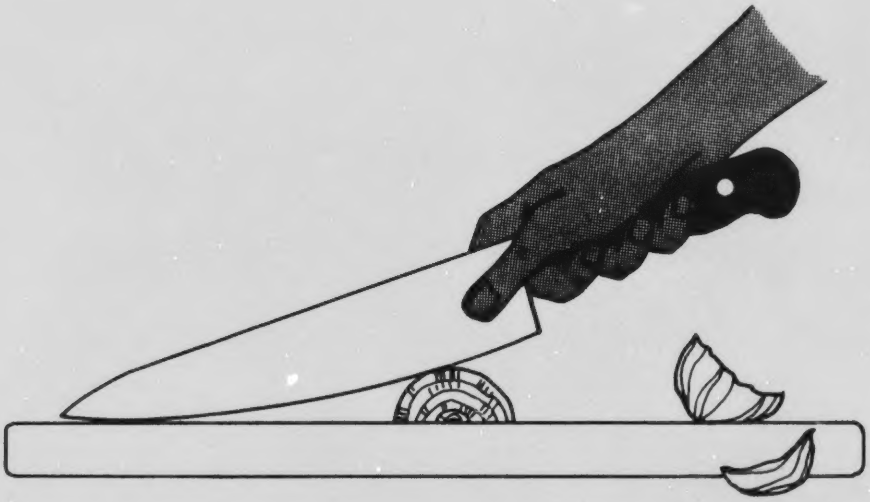
- A. French knife
- B. Cutting board
- C. Food to chop

  EXAMPLES: Celery, onions, green pepper

II. Procedure for holding the knife (Figure 65)

- A. Place thumb on side of blade
- B. Place first finger on opposite side
- C. Curl remaining fingers around handle directly behind blade

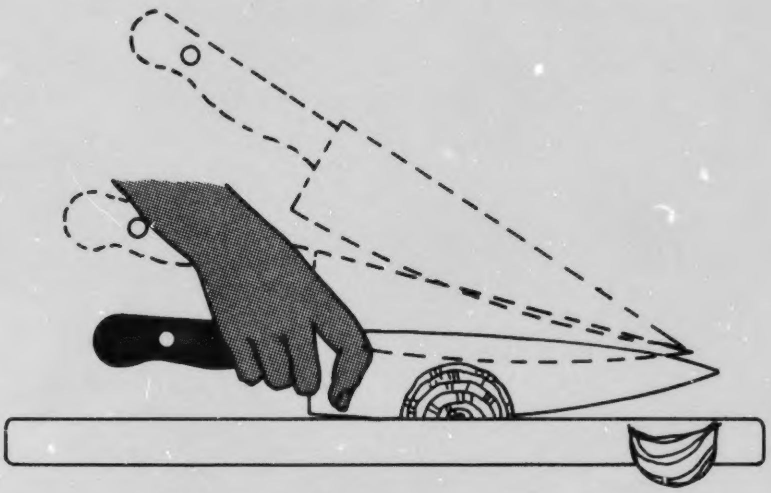
FIGURE 65



CLINICAL JOB SHEET #29

III. Procedure for slicing — Move knife down and forward (Figure 66)

FIGURE 66

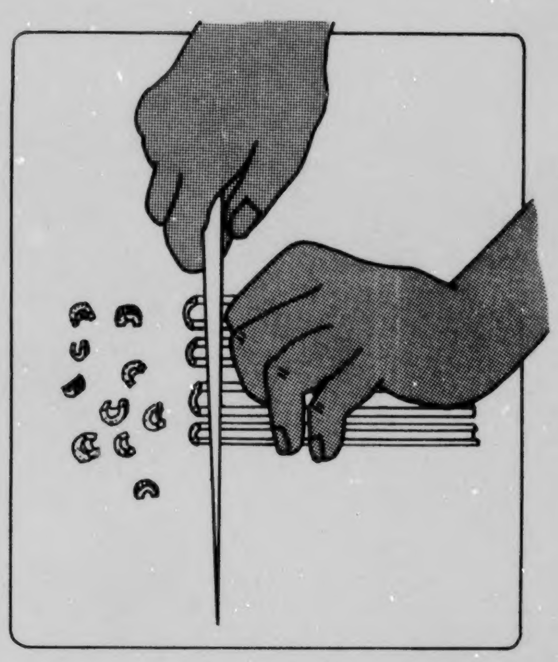


CLINICAL JOB SHEET #29

IV. Procedure for holding food (Figure 67)

- A. Hold food in a uniform row
- B. Fold under all fingers except thumb, as though scratching a surface
- C. Move hand back slightly after each slice

FIGURE 67



V. Procedure for chopping and dicing

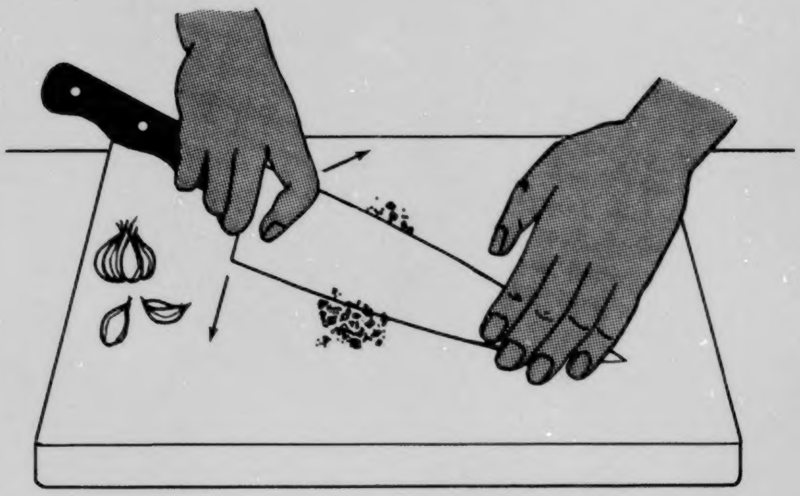
- A. Place knife at an angle to cutting board
- B. Move knife down and forward
- C. Keep knife tip on board while returning to position above food
- D. Pivot knife to new position
- E. Repeat forward and down motion

CLINICAL JOB SHEET #29

VI. Procedure for mincing (Figure 68)

- A. Place tip of knife on the board
- B. Rest fingers on top of the blade near tip
- C. Hold tip down while swiveling it around the board

FIGURE 68



- D. Hold knife at 30-degree angle

FOOD PREPARATION EQUIPMENT
UNIT II

CLINICAL JOB SHEET #30 — USE A BUTCHER'S STEEL

I. Equipment

A. Knife

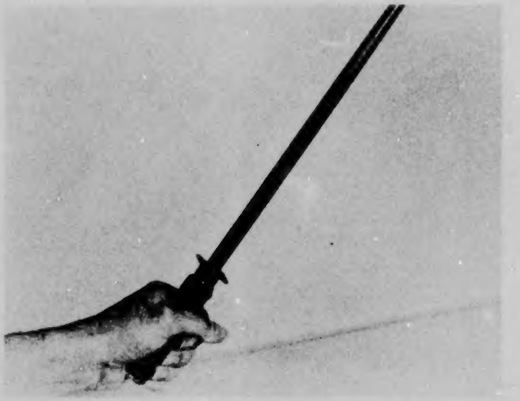
B. Butcher's steel

II. Procedure

A. Hold knife with normal grip

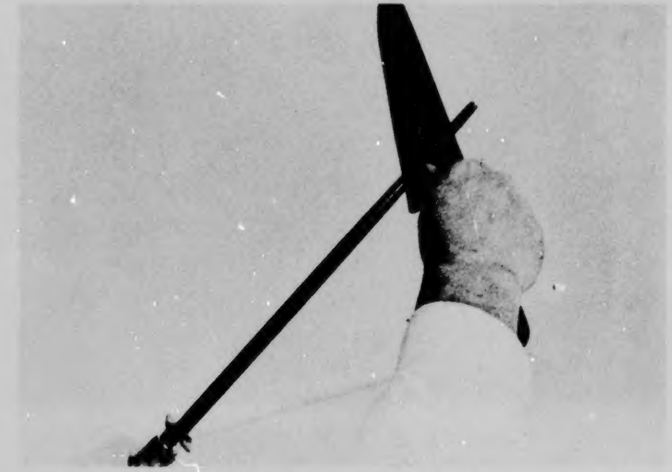
B. Hold butcher's steel well away from guard (Figure 69)

FIGURE 69



C. Place heel of knife at tip of steel (Figure 70)

FIGURE 70



CLINICAL JOB SHEET #30

D. Bring knife across steel in an arc motion, ending with tip of knife coming off near heel of steel (Figures 71 and 72)

FIGURE 71

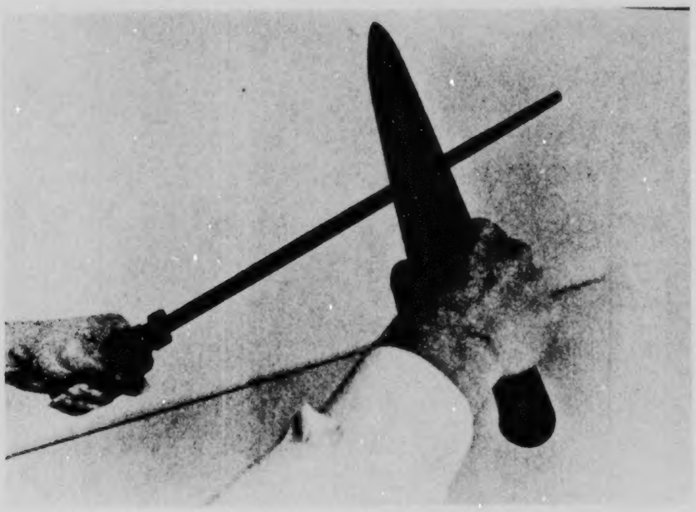
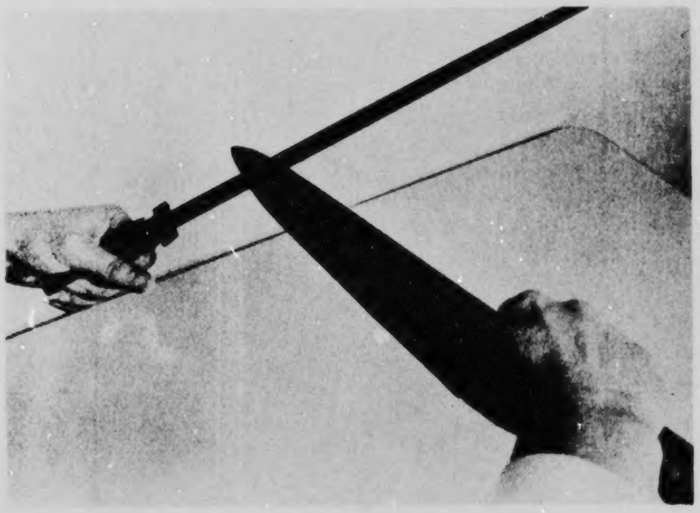


FIGURE 72



E. Repeat same motion on other side of steel to restore opposite edge of blade

F. Alternate in this manner eight or ten times

G. Clean and sanitize knife before storing or using

FOOD PREPARATION EQUIPMENT
UNIT II

TEST

NAME ______________________________ SCORE ______________

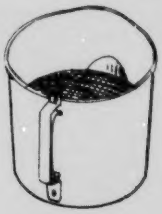
1. Define terms associated with food preparation equipment.

   a. Convection — ______________________________

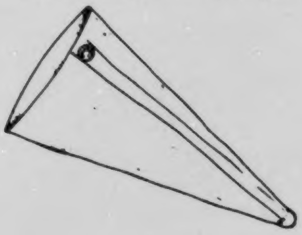
   b. Calrod — ______________________________

2. Identify food preparation tools and utensils. Write the correct names in the blanks.

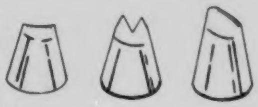
French wire whip
Piano wire whip
Pastry bag
Pastry tips
Sifter
Rolling pin
Boning knife
Butcher knife
Cleaver
Roast beef slicer
French knife
Ham slicer
Hand vegetable peeler or parer
Egg slicer
Hand meat tenderizer
Colander
Strainer
China cap
Grater
Half steam table pan
One-third steam table pan
Double boiler
Baking pan
Roasting pan
Sheet pan
Full steam table pan
Stockpot
Saucepan
Butcher's steel
Hand stone
One-fourth steam table pan



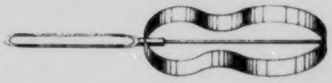
a. ______________________



b. ______________________



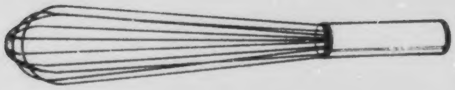
c. ______________________

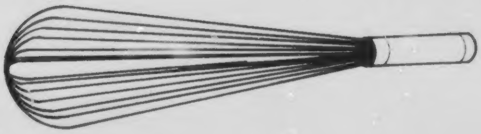


d. ______________________

e. ______________________

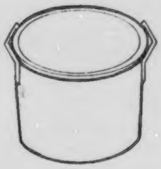
TEST

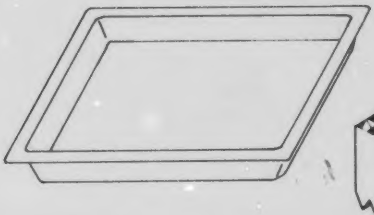


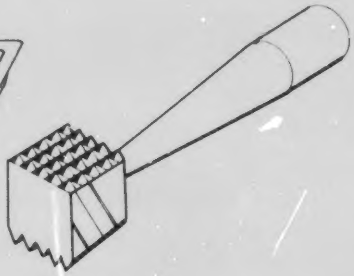


f. ____________________

g. ____________________



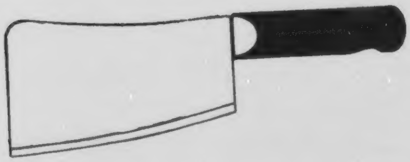


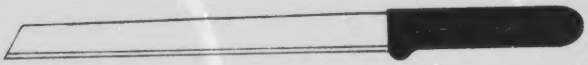


h. ____________________

i. ____________________

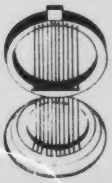
j. ____________________

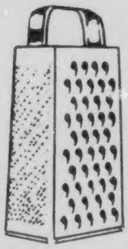


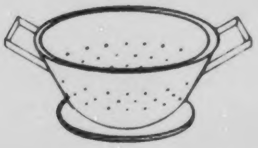


k. ____________________

l. ____________________





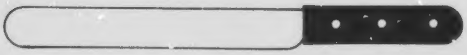


m. ____________________

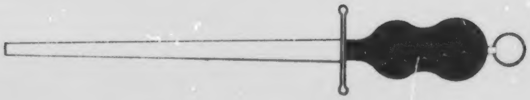
n. ____________________

o. ____________________

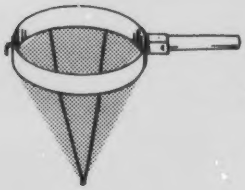
TEST



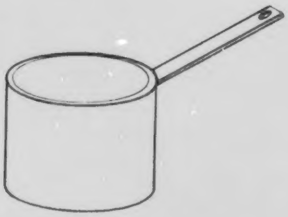
p. ____________________



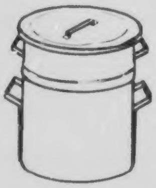
q. ____________________



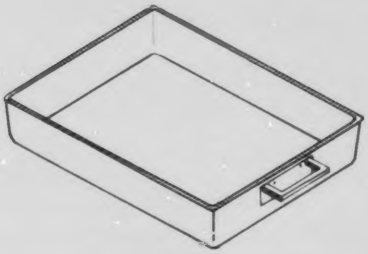
r. ____________________



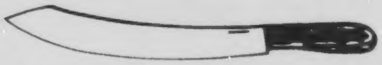
s. ____________________



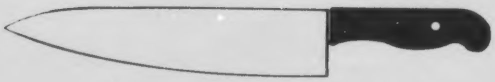
t. ____________________



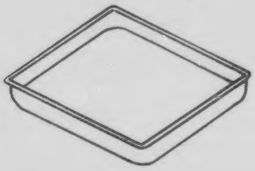
u. ____________________



v. ____________________

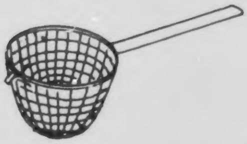


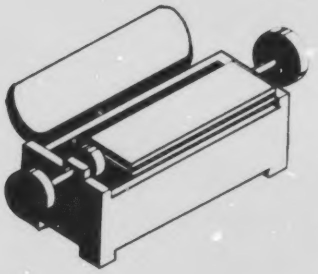
w. ____________________



x. ____________________

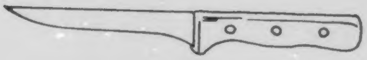
TEST

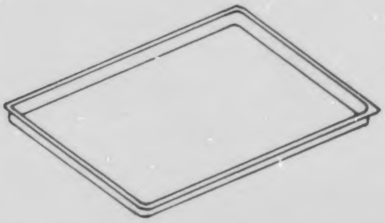




y. ______________________

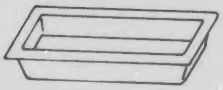
z. ______________________

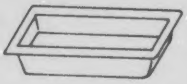




aa. ______________________

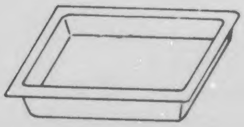
bb. ______________________





cc. ______________________

dd. ______________________



ee. ______________________

TEST

3. Match food preparation tools and utensils to their correct uses. Write the correct numbers in the blanks. Some blanks may contain more than one answer.

______a. Rolling dough to desired thickness

______b. Straining foods

______c. Cooking and serving various foods

______d. Whipping food

______e. Grating or shredding food into different-sized pieces

______f. Cutting steaks

______g. Cutting hard-cooked eggs uniformly

______h. Baking foods

______i. Straining foods or liquids

______j. Maintaining sharp edges on knives

______k. Holding icing, whipped topping, or fillings while decorating or filling

______l. Slicing roast beef

______m. Making different decorations and designs; attach to pastry bags

______n. Cutting bones out of meat

______o. Cooking small amounts of food on top of range

______p. Sifting flour and sugar

______q. Cooking foods that scorch easily

______r. Chopping bones

______s. Chopping, mincing, and dicing

______t. Pounding meat so that connective tissues are broken down

1. Pastry tips
2. Strainer
3. Cleaver
4. Hand meat tenderizer
5. China cap
6. Roast beef slicer
7. French wire whip
8. Steam table pan
9. Baking pan
10. Rolling pin
11. Butcher knife
12. Pastry bag
13. Egg slicer
14. Sheet pan
15. Piano wire whip
16. Boning knife
17. French knife
18. Grater
19. Butcher's steel
20. Saucepan
21. Sifter
22. Double boiler

TEST

______u. Peeling or paring outer skins from fruits and vegetables

______v. Cooking food on top of range

______w. Slicing ham

______x. Draining liquids from foods

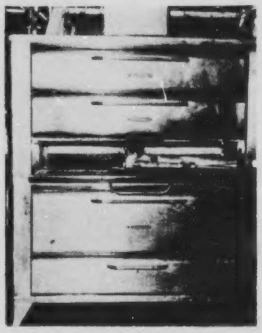
______y. Sharpening knives

______z. Roasting meats

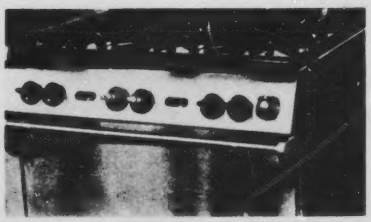
23. Hand stone
24. Stockpot
25. Colander
26. Roasting pan
27. Hand vegetable peeler or parer
28. Ham slicer

4. Identify equipment used by most food production employees. Write the correct names in the blanks.

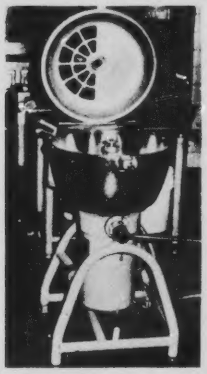
Mixer
Slicer
Vertical cutter mixer (VCM)
Food chopper (Buffalo chopper)
Compartment steamer
Manual meat grinder
Steam-jacketed kettle
Conventional oven
Convection oven
Range
Deep fat fryer
Broiler
Grill
Baker's table



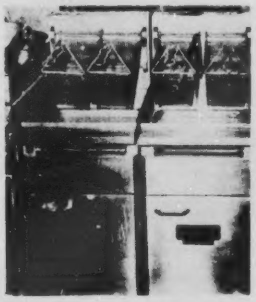
a. ______________________________



b. ______________________________

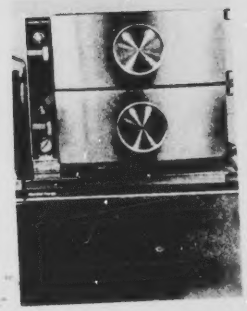


c. ______________________________

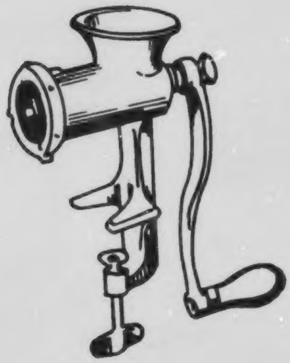


d. ______________________________

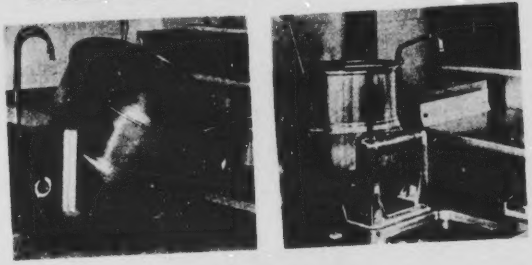
TEST



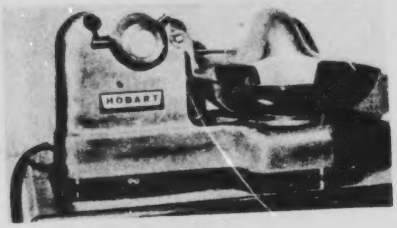
e. ______________________________



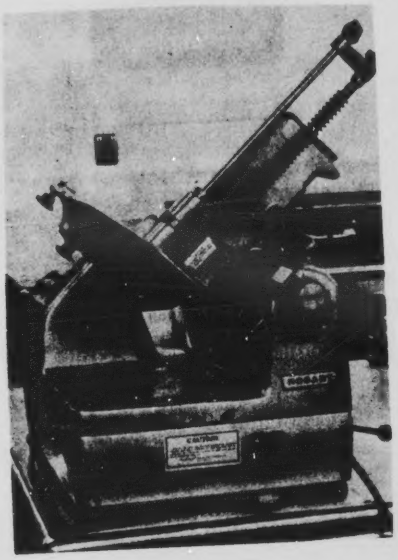
f. ______________________________



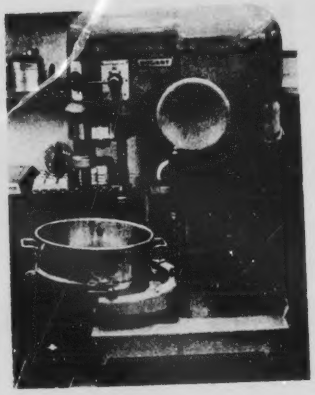
g. ______________________________



h. ______________________________

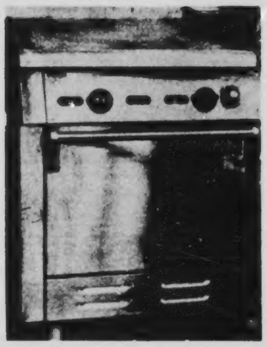

HOBART
CAUTION

i. ______________________________

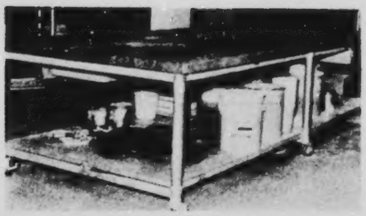


j. ______________________________

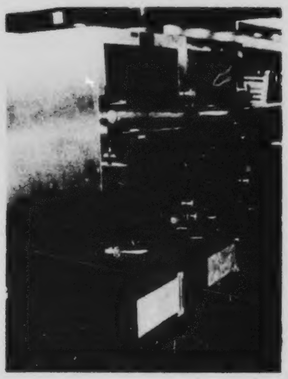
TEST



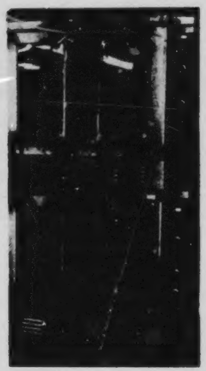
k. ______________________________



l. ______________________________



m. ______________________________



n. ______________________________

5. Select from the following list safety requirements for operators of hazardous equipment. Write an "X" in the blank before each correct answer.

_____a. Must not leave equipment unattended while operating

_____b. Must be able to use equipment to the satisfaction of the supervisor

_____c. Should not use equipment unless supervisor is present

_____d. Should be familiar with safety mechanisms

_____e. Should hide equipment from view of other dietary personnel

_____f. Should be alert, with attention focused on the equipment and operation

_____g. Must have observed the setup, operation, and cleanup of the equipment

_____h. Must wear safety glasses at all times

_____i. Must be trained in using equipment

TEST

6. State six rules for safe use of knives.

   a. ______________________________

   b. ______________________________

   c. ______________________________

   d. ______________________________

   e. ______________________________

   f. ______________________________

(NOTE: Test questions 7 and 8 list the assignment and job sheets. They are an important part of this test. If they have not been completed, check with your instructor.)

7. Evaluate adherence to equipment safety precautions.

8. Demonstrate the ability to

   a. Operate a mixer.

   b. Clean a mixer.

   c. Operate a slicer.

   d. Clean a slicer.

   e. Operate a vertical cutter mixer.

   f. Clean a vertical cutter mixer.

   g. Operate a food chopper.

   h. Clean a food chopper.

   i. Operate a manual meat grinder.

   j. Clean a manual meat grinder.

   k. Operate a steamer.

   l. Clean a steamer.

   m. Operate a steam-jacketed kettle.

   n. Clean a steam-jacketed kettle.

TEST

o. Operate a conventional oven.

p. Clean a conventional oven.

q. Operate a convection oven.

r. Clean a convection oven.

s. Operate a range.

t. Clean a range.

u. Operate a deep fat fryer.

v. Clean a deep fat fryer (electric).

w. Clean a deep fat fryer (gas).

x. Operate a grill.

y. Clean a grill.

z. Operate a broiler.

aa. Clean a broiler.

bb. Clean a baker's table.

cc. Use a French knife.

dd. Use a butcher's steel.

FOOD PREPARATION EQUIPMENT
UNIT II

ANSWERS TO TEST

(NOTE: It may be helpful to use your blank test to make a test key. The points designated in parentheses are intended to be guidelines and should be adapted to meet the needs of each teaching/learning situation. The point total for the entire test is 1063. The point total for questions 1-6 is 188; the point total for questions 7 and 8 is 875.)

1. (10 points)

   a. Transfer of heat by moving masses of air

   b. Electric heating element

2. (62 points)

   a. Sifter

   b. Pastry bag

   c. Pastry tips

   d. Hand vegetable peeler or parer

   e. Rolling pin

   f. French wire whip

   g. Piano wire whip

   h. Stockpot

   i. Full steam table pan

   j. Hand meat tenderizer

   k. Cleaver

   l. Ham slicer

   m. Egg slicer

   n. Grater

   o. Colander

   p. Roast beef slicer

ANSWERS TO TEST

q. Butcher's steel

r. China cap

s. Saucepan

t. Double boiler

u. Roasting pan

v. Butcher knife

w. French knife

x. Baking pan

y. Strainer

z. Hand stone

aa. Boning knife

bb. Sheet pan

cc. One-third steam table pan

dd. One-fourth steam table pan

ee. Half steam table pan

3. (52 points)

a.	10	h.	9, 14	o.	20	v.	24
b.	2	i.	5	p.	21	w.	28
c.	8	j.	19	q.	22	x.	25
d.	7, 15	k.	12	r.	3	y.	23
e.	18	l.	6	s.	17	z.	26
f.	11	m.	1	t.	4		
g.	13	n.	16	u.	27		

ANSWERS TO TEST

4. (28 points)

   a. Conventional oven

   b. Range

   c. Vertical cutter mixer (VCM)

   d. Deep fat fryer

   e. Compartment steamer

   f. Manual meat grinder

   g. Steam-jacketed kettle

   h. Food chopper (Buffalo chopper)

   i. Slicer

   j. Mixer

   k. Grill

   l. Baker's table

   m. Broiler

   n. Convection oven

5. (18 points)

   a, b, d, f, g, i

6. (18 points)

   Answer should include any six of the following

   a. Use a sharp knife

   b. Grasp knife by handle, never by blade

   c. If you must walk with a knife, hold blade down, top of knife blade forward

   d. Make sure that knife handle is dry and free of grease

   e. Do not cut food on a cluttered work surface

ANSWERS TO TEST

f. Keep your eyes on the knife and food being cut

g. Control the knife; never use excessive speed

h. Do not place knife in sink of water where it cannot be seen

i. Do not try to catch a falling knife

j. Keep knives sharp and store in a rack

7. Evaluated to the satisfaction of the clinical instructor (25 points)

8. Performance skills evaluated to the satisfaction of the clinical instructor

a. (35 points)

b. (25 points)

c. (35 points)

d. (25 points)

e. (25 points)

f. (30 points)

g. (25 points)

h. (30 points)

i. (15 points)

j. (15 points)

k. (20 points)

l. (25 points)

m. (35 points)

n. (25 points)

o. (25 points)

p. (30 points)

q. (25 points)

r. (30 points)

s. (20 points)

t. (35 points)

u. (35 points)

v. (35 points)

w. (35 points)

x. (25 points)

y. (30 points)

z. (35 points)

aa. (30 points)

bb. (25 points)

cc. (35 points)

dd. (35 points)

STANDARDIZED RECIPES
UNIT III

UNIT OBJECTIVE

After completing this unit, the student should be able to standardize and adjust the yield of a recipe. This knowledge will be shown by completing assignment sheets and unit test with a minimum score of 85 percent.

SPECIFIC OBJECTIVES

After completing this unit, the student should be able to

1. Match terms associated with recipes to their correct definitions.
2. Select from a list advantages of using standardized recipes.
3. Select from a list elements of a standardized recipe.
4. List reasons why knowledge of basic math is important in using recipes.
5. State rules for converting weights to measures.
6. Arrange in order the steps for following a recipe.
7. Complete basic math functions.
8. Adjust the yield of a recipe.
9. Standardize a recipe.

STANDARDIZED RECIPES
UNIT III

SUGGESTED ACTIVITIES

I. Suggested activities

A. Order materials to supplement unit--Film: *Using Standardized Recipes.* Color, 16 mm, 10 minutes, National Educational Media, Inc., 1969. Available from National Educational Media, Inc., 15760 Ventura Boulevard, Encino, California 91436.

(NOTE: This film is also available in 3/4-inch U-Matic, 1/2-inch Betamax, VHS videocassettes, and Super-8 mm automatic cartridge systems for Fairchild, MPO, Technicolor, and Kodak sound projectors.)

B. Provide students with objective sheet.

C. Discuss unit and specific objectives.

D. Provide students with information and assignment sheets.

E. Discuss information and assignment sheets.

F. Develop appropriate learning activities for special needs students.

G. Review "Food Production and Service," Section D, Unit III, *Food Service Worker,* for information on weights, measures, and abbreviations.

H. Purchase two or three similar commercial products, or ask two or three students to bring to class a particular home prepared product, such as peanut butter cookies. Point out that each cook had his or her own recipe, so although the product is the same, the quality and yield are very different. If you use the commercial products, point out that a person can expect the same quality each time when buying a particular brand, because standardized recipes are used.

I. Discuss restaurants in your area. Can the students from their own personal experience with food quality identify the ones that use standardized recipes?

J. Play a game with poor recipe cards. Let the students see how many missing essentials they can find in a set time period.

K. Ask the students to bring references that would be helpful in adjusting recipes. Make copies for each student so that they can make a file.

EXAMPLE: Equivalent can sizes of foods and their equivalent weights and measures

L. Discuss the use of standardized recipes in each student's department.

M. Give test.

N. Reteach if necessary.

SUGGESTED ACTIVITIES

II. Instructional materials

- A. Objective sheet
- B. Suggested activities
- C. Information sheet
- D. Transparency masters
  1. TM #1--Standardized Bread Dressing Recipe
  2. TM #2--Standardized Marble Cake Recipe
  3. TM #3--Standardized White Cake Recipe
- E. Class assignment sheets
  1. Class Assignment Sheet #1--Complete Basic Math Functions
  2. Class Assignment Sheet #2--Adjust the Yield of a Recipe
- F. Answers to class assignment sheets
- G. Clinical Assignment Sheet #1--Standardize a Recipe
- H. Answers to clinical assignment sheet
- I. Test
- J. Answers to test

III. Unit references

A. Grimes, Vici, and Jerald Chesser. *Food Service: Production and Service.* Stillwater, Oklahoma: State Department of Vocational and Technical Education/Curriculum and Instructional Materials Center, 1976.

B. Hospital Research and Educational Trust. *Being a Food Service Worker,* 8th ed. Bowie, Maryland: Robert J. Brady Co., 1974.

C. Mahaffey, Mary J., et al. *Food Service Manual For Health Care Institutions,* 4th ed. Chicago: American Hospital Association, 1981.

D. West, B.B., et al. *Food for Fifty,* 6th ed. New York: John Wiley and Sons, Inc., 1979.

STANDARDIZED RECIPES
UNIT III

INFORMATION SHEET

I. Terms and definitions

- A. As purchased (AP)--Amount of ingredients before being cleaned, pared, or trimmed
- B. Edible portion (EP)--Amount of ingredients after being cleaned, pared, or trimmed
- C. Recipe--Guide for preparing a product in cookery; a means prescribed for producing a desired result
- D. Standardized recipe--Written formula that has been tested a number of times and found to be satisfactory in quality and quantity of yield each time
- E. Yield--Number of servings produced by a recipe

II. Advantages of using standardized recipes

- A. Maintenance of consistent quality

  (NOTE: Patients expect the same attractive, palatable food each time they order a particular item. This is impossible if each cook has his or her own recipe.)

- B. Assurance of consistent nutritional value

  (NOTE: Consistent nutritional value is especially important when serving patients on modified diets.)

- C. Cost control

  (NOTE: Standardized recipes help control costs because work is minimized, efficient preparation and cooking methods are used, yields are predetermined, and purchasing is simplified.)

III. Elements of a standardized recipe (Transparencies #1-#3; Clinical Assignment Sheet #1)

- A. Name of product
- B. Amount of ingredients needed by weight or measure

  (NOTE: Weights may be listed as AP or EP and should be specified on the recipe.)

- C. Description of ingredients

  EXAMPLES: Cooked, raw

INFORMATION SHEET

D. Form of ingredients

EXAMPLES: Chopped, grated

E. Description of utensils to be used

F. Method of combining ingredients

G. Temperature required for each step

H. Volume or weight to be placed in a specific container

I. Yield

EXAMPLES: Number of portions per pan; size of each serving portion; quantity yield in cups, quarts, or gallons

IV. Reasons why knowledge of basic math is important in using recipes (Class Assignment Sheet #1)

A. Math is used in converting weights and measures

B. Accuracy when adjusting recipe yield may mean the difference between a quality product and an inedible product

V. Rules for converting weights to measures (Class Assignment Sheet #2)

A. Multiply both sides of table for desired weight or measure

EXAMPLES:

1. 1 oz of horseradish = 2 T

a. Recipe calls for 3 ounces of horseradish

3 x 1 oz = 3 x 2 T
3 oz = 6 T

b. Recipe calls for 8 tablespoons of horseradish

4 x 1 oz = 4 x 2 T
4 oz = 8 T

2. 6 oz of chocolate chips = 1 c

a. Recipe calls for 4 cups of chocolate chips

4 x 6 oz = 4 x 1 c
24 oz = 4 c

INFORMATION SHEET

b. Recipe calls for 18 ounces of chocolate chips

3 x 6 oz = 3 x 1 c
18 oz = 3 c

3. 1 lb 4 oz of canned peas = 2 c

a. Recipe calls for 2 pounds 8 ounces of canned peas

2 x 1 lb 4 oz = 2 x 2 c
2 lb 8 oz = 4 c

b. Recipe calls for 1 gallon of canned peas (1 gal = 16 c)

8 x 1 lb 4 oz = 8 x 2 c
160 oz or 10 lb = 16 c or 1 gal

B. Change amount of ingredient to largest weight or measure

EXAMPLES:

1. 20 oz ÷ 16 oz = 1 lb 4 oz
2. 5 qt ÷ 4 qt = 1 gal 1 qt
3. 8 T ÷ 16 T = 1/2 cup
4. 6 pt ÷ 2 pt = 3 qt

VI. Steps for following a recipe

A. Read recipe thoroughly

B. Check yield of recipe and number of portions to be prepared

C. Adjust recipe yield if necessary, or consult supervisor

D. Collect needed utensils and ingredients

E. Accurately weigh and/or measure needed ingredients

F. Follow recipe directions exactly

(NOTE: Any suggestions for improving a recipe should be given to the supervisor. If approved, a permanent change should be made in the recipe.)

Standardized Bread Dressing Recipe

BREAD DRESSING

Portion: ¼ cup (No. 16 scoop)

Size of Pan: 20" x 12" x 2"
25 portions per pan

Oven: 350° F
Bake: 1 hour

INGREDIENTS	AMOUNT		PROCEDURE
	25 Portions	100 Portions	
Turkey or chicken fat, butter, or margarine	6 oz (¾ c)	1 lb 8 oz (3 c)	Melt fat. Add celery and onion; cover and cook 5 minutes.
Celery, chopped	12 oz (3 c)	3 lb (2 qt 3¼ c)	
Onion, chopped	12 oz (2 c)	3 lb (2 qt)	
Salt	1½ t	1 oz (2 T)	Sprinkle seasonings throughout the bread cubes. Blend with celery-onion mixture. Add giblets, if desired.
Poultry seasoning	1½ t	2 T	
Bread cubes, soft, untrimmed	2 lb (1¼ gal)	7 lb 8 oz (5 gal)	
Giblets, finely chopped (optional)	2 ½ oz (¾ c)	11½ oz (2½ c)	
Turkey or chicken broth	As needed	As needed	Add just enough broth to moisten the bread slightly. Blend thoroughly. Place in greased baking pans 20" x 12" x 2" (one pan for 25 portions). Bake at 350° F about 1 hour.
Variation: Corn Bread Stuffing			
Reduce quantity of bread cubes to	1 lb	4 lb	Follow directions above.
Add crumbled unsweetened corn bread	1 lb 8 oz	5 lb 8 oz	

Date Calculated	Cost per portion	Date Calculated	Cost per portion
________	________	________	________
________	________	________	________
________	________	________	________

FPW - 167-C

Standardized Marble Cake Recipe

Formula: White or Marble Cake
Size Portion: One slice
4½" x 4" x ½"
Yield: 4 9"-square layers, 2 2-layer cakes

Size Pan: 9" square
How Portioned: Cut each cake in 30, 3 x 10 cuts

Number of Portions	*60*		*Date Priced*	
Ingredients	*E P Weight Measure*	*A P Weight Measure*	*Unit Price*	*Cost*
Cake flour, sifted	2 lb			
Baking powder	3⅓ T			
Shortening	1 lb			
Sugar	2 lb			
Salt	2 t			
Milk	1⅓ c			
Egg whites	1¾ c			
Milk	2 c			
Vanilla	1⅓ T			
For marble cakes use chocolate melted (added to ⅓ dough)*	2⅔ oz			

Total Cost ______________
Portion Cost ______________

Procedure

1. Set oven for 350°F. Take milk and eggs from refrig. Oil pans.
2. Sift flour and baking powder together into mixer bowl.
3. Add shortening, mix together at low speed for 2 min.
4. Mix sugar, salt, and first amount of milk. Add to flour mix and mix 2 min at low speed. Scrape and mix 3 min more.
5. Combine whites, milk, and vanilla. Add half this mixture to flour, etc. Mix 30 sec. Scrape. Mix 2½ min. Add other half and mix 2½ min.
6. Pour in oiled pans, bake 30-35 min at 350°F.

* For marble cake mix melted chocolate with one-third batter. Streak chocolate through plain batter. Bake as above.

FPW - 169-C

Standardized White Cake Recipe

White Cake

Portions: 60
How portion: Cut each cake 3 x 10
Size of pans: 9" x 9"
Yield: 4 pans or 2 2-layer cakes

Ingredients	*Wt. or Amt.*	*Measure*
Flour, cake	2 lb	2 qt 1½ c
Baking powder	1⅔ oz	3⅓ T
Fat	1 lb	2¼ c
Sugar	2 lb	1 qt
Salt	2 t	2 t
Milk	1⅓ c	1⅓ c
Egg whites	14 oz	1¾ c (14-16)
Milk	2 c	2 c
Vanilla	1⅓ T	1⅓ T

Mixing Machine Method:

1. Set oven for 350°F. Take milk and eggs from refrigerator. Oil pans.
2. Sift flour and baking powder together into mixing bowl.
3. Add shortening, mix together at low speed for 2 min.
4. Mix sugar, salt, and first amount of milk. Add to flour mix, and mix 2 min at low speed. Scrape and mix 3 min more.
5. Combine whites, milk, and vanilla. Add half this mixture to flour, etc. Mix 30 sec. Scrape. Mix 2½ min. Add other half mixture and mix 2½ min.
6. Pour in oiled pans, bake 30-35 min at 350°F.

NOTE: 2⅔ oz melted baking chocolate may be added to one-third batter to make a marble cake.

FPW - 171-C

STANDARDIZED RECIPES
UNIT III

CLASS ASSIGNMENT SHEET #1--COMPLETE BASIC MATH FUNCTIONS

NAME ____________________________________ SCORE ________________

Recipe standardization requires math skills. Solve the math problems below to improve your skills. Do not use a calculator for this assignment.

PART I

Add the following fractions with unlike denominators. Write your answers in the blanks provided. Reduce fractions to lowest terms.

EXAMPLES: 1/2 + 2/3 = 3/6 + 4/6
= 7/6
= 1 1/6

1 1/2 + 3/4 = 3/2 + 3/4
= 6/4 + 3/4
= 9/4
= 2 1/4

A. 1/2 + 1/3 = ______________________________

B. 1/8 + 1/2 = ______________________________

C. 1/5 + 1/7 = ______________________________

D. 1/9 + 1/8 = ______________________________

E. 2/7 + 3/11 = ______________________________

F. 4/15 + 1/13 = ______________________________

G. 1/5 + 1/6 = ______________________________

H. 2/9 + 3/7 + 1/2 = __________________________

I. 1/4 + 1/9 + 1/7 = __________________________

J. 1 2/3 + 2 3/4 = ____________________________

K. 1/4 + 6 = ________________________________

L. 1/2 + 3 2/3 = ______________________________

CLASS ASSIGNMENT SHEET #1

PART II

Multiply the following fractions. Write your answers in blanks provided. Reduce fractions to lowest terms.

EXAMPLES: 1/2 x 1/5 = 1/10   2 3/4 x 1/3 = 11/4 x 1/3
= 11/12

A. 1/2 x 3/5 = ______________________________

B. 2/3 x 3/5 = ______________________________

C. 7/8 x 1/3 = ______________________________

D. 3/4 x 6/7 = ______________________________

E. 15/16 x 4/5 = ______________________________

F. 5/6 x 2/3 = ______________________________

G. 3/16 x 8/9 = ______________________________

H. 4/5 x 60 = ______________________________

I. 2/3 x 4 1/5 = ______________________________

J. 2 1/4 x 6 = ______________________________

STANDARDIZED RECIPES
UNIT III

CLASS ASSIGNMENT SHEET #2--ADJUST THE YIELD OF A RECIPE

NAME ______________________________ SCORE ______________

Adjusting the yield of a recipe often requires conversion of weights and measures, and reduction of those conversions to the lowest terms.

PART I

Using the following information, complete the chart below. Convert to the largest weight or measure.

EXAMPLE:

FOOD ITEM	WEIGHT	MEASURE
Baking soda	7 oz	1 c
Cornmeal	1 lb 5 oz	1 qt
Milk	1 lb	1 pt
Mustard	8 oz	1 pt
Rolled oats	3 oz	1 c
Pickle relish	10 1/2 oz	1 pt
Vinegar	1 lb	1 pt

FOOD ITEM	WEIGHT	MEASURE
Baking soda	A. __________	3 c
Cornmeal	2 lb 10 oz	B. __________
Milk	C. __________	1 1/2 pt
Mustard	32 oz	D. __________
Rolled oats	12 oz	E. __________
Pickle relish	F. __________	3 pt
Vinegar	G. __________	1 qt

CLASS ASSIGNMENT SHEET #2

PART II

Increase the following recipe yield from 100 portions to 500 portions, and convert to the largest weight or measure.

EXAMPLE: 3 t sugar x 5 = 15 t sugar = 5 T = 1/4 c + 1 T

A. 8 oz diced apples x 5 = ______________ = ______________

B. 2 c sliced bananas x 5 = ______________ = ______________

C. 1/2 gal orange sections x 5 = ______________ = ______________

D. 1 1/2 gal diced pears x 5 = ______________ = ______________

E. 1 qt grapes x 5 ______________ = ______________

F. 4 oz sliced peaches x 5 = ______________ = ______________

G. 2 t lemon juice x 5 = ______________ = ______________

H. 1 pt apricot halves x 5 = ______________ = ______________

STANDARDIZED RECIPES
UNIT III

ANSWERS TO CLASS ASSIGNMENT SHEETS

Assignment Sheet #1

Part I

A. 5/6

B. 5/8

C. 12/35

D. 17/72

E. 43/77

F. 67/195

G. 11/30

H. 145/126 or 1 19/126

I. 127/252

J. 53/12 or 4 5/12

K. 25/4 or 6 1/4

L. 25/6 or 4 1/6

Part II

A. 3/10

B. 6/15 or 2/5

C. 7/24

D. 18/28 or 9/14

E. 60/80 or 3/4

F. 10/18 or 5/9

G. 24/144 or 1/6

H. 240/5 or 48

I. 42/15 or 2 4/5

J. 54/4 or 13 1/2

Assignment Sheet #2

(NOTE: The last answer is preferred, but you may wish to give partial credit for any of the other forms of the answer.)

Part I

A. 21 oz or 1 lb 5 oz

B. 2 qt or 1/2 gal

C. 24 oz or 1 lb 8 oz

D. 4 pt or 2 qt

E. 4 c or 2 pt or 1 qt

F. 31 1/2 oz or 1 lb 15 1/2 oz

G. 2 lb

ANSWERS TO CLASS ASSIGNMENT SHEETS

Part II

A. 40 oz = 2 lb 8 oz or 2 1/2 lb

B. 10 c = 2 qt 1 pt or 2 1/2 qt

C. 10 qt = 2 gal 2 qt or 2 1/2 gal

D. 30 qt = 7 gal 2 qt or 7 1/2 gal

E. 5 qt = 1 gal 1 qt or 1 1/4 gal

F. 20 oz = 1 lb 4 oz or 1 1/4 lb

G. 10 t = 3 T 1 t

H. 5 pt = 2 qt 1 pt or 2 1/2 qt

STANDARDIZED RECIPES
UNIT III

CLINICAL ASSIGNMENT SHEET #1--STANDARDIZE A RECIPE

NAME ______________________________ SCORE ______________

Each recipe used in a food service department should be standardized for that individual department's use. Yield, equipment size, quality of ingredients, and time all need to be considered. Consult with your clinical instructor and standardize a recipe for your department's use. Write a brief report, including necessary adjustments in ingredients, pan sizes, and mixing times. Part I outlines the procedure for standardizing a recipe. Use the form in Part II to write your report.

PART I

A. Choose a recipe with all of the essential elements

(NOTE: Recipes are available from many sources: cookbooks, magazines, friends, commercial food companies. Knowledge of the recipe ingredients and final product quality are essential.)

B. Prepare recipe in the original amount

C. Double or halve recipe if results were satisfactory

(NOTE: Family-size recipes cannot be depended upon to give satisfactory results if ingredients are simply multiplied several times to give a larger quantity. Also, consider the size of equipment available before increasing a recipe; two or three batches may be necessary if equipment will not accommodate a larger pot.)

D. Double or halve recipe again if results were satisfactory

E. Make adjustments so that same results in the smaller or larger recipe are obtained

EXAMPLES: Speed of the mixer, mixing time

(NOTE: Use this method of increasing or decreasing the yield of a recipe cautiously. The ratio between ingredients should always be maintained. Consult the references listed in this unit for other recipe yield adjustment methods.)

F. After obtaining desired yield, prepare the recipe again to double-check the quantity and quality

G. Evaluate the recipe for use in a particular food service organization

(NOTE: Regardless of the recipe source, it should be standardized for each food service department's use.)

H. Duplicate the standardized recipe

(NOTE: Copies of the recipe should be kept in the production area and supervisor's office. For easy access, file recipes according to classes of foods.)

I. *Use the standardized recipe*

CLINICAL ASSIGNMENT SHEET #1

PART II

Evaluate the final product of your standardized recipe. Use the forms provided, and allow at least three other people to taste and evaluate the recipe.

Product:

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring--____
____
2. Temperature of cookery--____
____
3. Preparation--____
____

Circle the description that reflects your rating of portion size.

Too large   Adequate   Too small

Comments:____
____
____
____
____
____
____

CLINICAL ASSIGNMENT SHEET #1

Product:

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring-- ______________________________
2. Temperature of cookery-- ______________________________
3. Preparation-- ______________________________

Circle the description that reflects your rating of portion size.

Too large Adequate Too small

Comments: ______________________________

CLINICAL ASSIGNMENT SHEET #1

Product:

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring--______________________________
2. Temperature of cookery--______________________________
3. Preparation--______________________________

Circle the description that reflects your rating of portion size.

Too large Adequate Too small

Comments: ______________________________

FPW - 181-C

CLINICAL ASSIGNMENT SHEET #1

Product:

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring--

2. Temperature of cookery--

3. Preparation--

Circle the description that reflects your rating of portion size.

Too large Adequate Too small

Comments:

CLINICAL ASSIGNMENT SHEET #1

Product:

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring--
2. Temperature of cookery--
3. Preparation--

Circle the description that reflects your rating of portion size.

Too large Adequate Too small

Comments:

STANDARDIZED RECIPES
UNIT III

ANSWERS TO CLINICAL ASSIGNMENT SHEET

Evaluated to the satisfaction of the clinical instructor

STANDARDIZED RECIPES
UNIT III

TEST

NAME ______________________ SCORE ____________

1. Match terms associated with recipe use to their correct definitions. Write the correct numbers in the blanks.

______a. Amount of ingredients before being cleaned, pared, or trimmed

______b. Guide for preparing a product in cookery; a means prescribed for producing a desired result

______c. Number of servings produced by a recipe

______d. Amount of ingredients after being cleaned, pared, or trimmed

______e. Written formula that has been tested a number of times and found to be satisfactory in quality and quantity of yield each time

1. Recipe
2. Standardized recipe
3. Yield
4. Edible portion (EP)
5. As purchased (AP)

2. Select from the following list advantages of using standardized recipes. Write an "X" in the blank before each correct answer.

______a. Prevention of misreading recipe

______b. Cost control

______c. Maintenance of consistent quality

______d. Encouragement of creativity

______e. Assurance of consistent nutritional value

3. Select from the following list elements of a standardized recipe. Write an "X" in the blank before each correct answer.

______a. Volume or weight to be placed in a specific container

______b. Time needed to perform each preparation step

______c. Name of product

______d. Description of ingredients

______e. Method of combining ingredients

TEST

_____ f. Picture of final product

_____ g. Serving suggestions

_____ h. Temperature required for each step

_____ i. Description of utensils to be used

_____ j. Form of ingredients

_____ k. Suggestions for garnishing final product

_____ l. Yield

_____ m. Identity of original source of recipe

_____ n. Amount of ingredients needed by weight or measure

4. List reasons why knowledge of basic math is important in using recipes.

a. ____

____

b. ____

____

5. State rules for converting weights to measures.

a. ____

b. ____

6. Arrange in order the steps for following a recipe. Write a "1" before the first step, a "2" before the second step, and so on.

_____ a. Collect needed utensils and ingredients

_____ b. Read recipe thoroughly

_____ c. Follow recipe directions exactly

_____ d. Accurately weigh and/or measure needed ingredients

_____ e. Adjust recipe yield if necessary, or consult supervisor

_____ f. Check yield of recipe and number of portions to be prepared

TEST

(NOTE: Test questions 7-9 list the assignment sheets. They are an important part of this test. If they have not been completed, check with your instructor.)

7. Complete basic math functions.

8. Adjust the yield of a recipe.

9. Standardize a recipe.

STANDARDIZED RECIPES
UNIT III

ANSWERS TO TEST

(NOTE: It may be helpful to use your blank test to make a test key. The points designated in parentheses are intended to be guidelines and should be adapted to meet the needs of each teaching/learning situation. The point total for the entire test is 370. The point total for questions 1-6 is 84; the point total for questions 7-9 is 286.)

1. (10 points)

   a. 5

   b. 1

   c. 3

   d. 4

   e. 2

2. (10 points)

   b, c, e

3. (28 points)

   a, c, d, e, h, i, j, l, n

4. (6 points)

   a. Math is used in converting weights and measures

   b. Accuracy when adjusting recipe yield may mean the difference between a quality product and an inedible product

5. (6 points)

   a. Multiply both sides of table for desired weight or measure

   b. Change amount of ingredient to largest weight or measure

6. (24 points)

   a. 4 d. 5

   b. 1 e. 3

   c. 6 f. 2

ANSWERS TO TEST

7. Evaluated to the satisfaction of the class instructor (44 points)

8. Evaluated to the satisfaction of the class instructor (42 points)

9. Evaluated to the satisfaction of the clinical instructor (200 points)

PROTEIN COOKERY I
UNIT IV

UNIT OBJECTIVE

After completing this unit, the student should be able to practice the principles of protein cookery. The student should also be able to select and prepare high-quality egg and dairy product dishes. This knowledge will be shown by completing job sheets and unit test with a minimum score of 85 percent.

SPECIFIC OBJECTIVES

After completing this unit, the student should be able to

1. Match to their correct definitions terms associated with egg and dairy product cookery.
2. List basic techniques of protein cookery.
3. Describe the effects of cooking protein at high temperatures.
4. Select from a list the functions of eggs in food preparation.
5. Match grades of eggs to their correct quality standards.
6. Match egg sizes to their correct minimum weight per dozen.
7. Describe proper egg storage.
8. Match processes associated with egg cookery to their correct descriptions.
9. Identify types of cooked eggs.
10. Match eggs cooked in the shell to their correct standards.
11. List classifications of cheese.
12. Describe proper cheese storage.
13. Select from a list principles of cheese cookery.
14. List cheese cookery techniques.
15. List the sanitary controls used in processing milk.
16. Match kinds of milk to their correct characteristics.
17. Describe precautions in the storage of milk.

OBJECTIVE SHEET

18. Select from a list the principles of milk cookery.

19. Identify guidelines for specific milk cookery techniques.

20. Name color and ingredients of basic sauces.

21. Match basic sauces to the types of food with which they are commonly served.

22. Demonstrate the ability to

    a. Prepare a cheese omelet.

    b. Prepare scrambled eggs.

    c. Prepare fried eggs.

    d. Prepare hard-cooked eggs.

    e. Prepare poached eggs.

    f. Prepare meringue.

    g. Prepare whipped topping.

    h. Prepare white cream sauce.

    i. Prepare hollandaise sauce.

    j. Prepare tomato sauce.

    k. Prepare brown sauce.

PROTEIN COOKERY I
UNIT IV

SUGGESTED ACTIVITIES

I. Suggested activities

A. Order materials to supplement unit.

1. Film — *Give Your Eggs a Break*. Color, 16 mm, 10 minutes, National Education Media, Inc., 1979. Available from National Education Media, Inc., 15760 Ventura Boulevard, Encino, California 91436.

   (NOTE: This film is also available in 3/4" U-Matic and 1/2" Betamax and VHS Videocassettes and Super 8 mm Automatic Cartridge system for Fairchild, MPO, Technicolor, and Kodak sound projectors.)

2. Filmstrip — *The Incredible Edible Egg*. 35 mm, 8 minutes, American Egg Board, 1978. Available from American Egg Board, 1460 Renaissance Drive, Park Ridge, Illinois 60068.

   (NOTE: This filmstrip and teaching kit are available on loan basis to Oklahoma teachers from Dietetic Assistant Program Specialist, c/o Tulsa Area Vo-Tech School, 3420 South Memorial, Tulsa, Oklahoma 74145.)

B. Provide students with objective sheet.

C. Discuss unit and specific objectives.

D. Provide students with information and job sheets.

E. Discuss information sheet.

F. Demonstrate and discuss procedures outlined in job sheets.

G. Develop appropriate learning activities for special needs students.

H. Bring different grades of eggs to class and conduct a judging contest between teams of students to determine the grades of the eggs.

I. Bring to class the cartons from various types of milk. Compare the characteristics listed on the cartons to those for each kind of milk listed in the Information Sheet, Section XVI.

J. Arrange a visit to a cheese shop. Have students taste different cheeses if possible. Have students identify the various kinds of cheese based on flavor and moisture content.

K. Give test.

L. Reteach if necessary.

SUGGESTED ACTIVITIES

II. Instructional materials

- A. Objective sheet
- B. Suggested activities
- C. Information sheet
- D. Clinical job sheets
  1. Clinical Job Sheet #1 — Prepare a Cheese Omelet
  2. Clinical Job Sheet #2 — Prepare Scrambled Eggs
  3. Clinical Job Sheet #3 — Prepare Fried Eggs
  4. Clinical Job Sheet #4 — Prepare Hard-Cooked Eggs
  5. Clinical Job Sheet #5 — Prepare Poached Eggs
  6. Clinical Job Sheet #6 — Prepare Meringue
  7. Clinical Job Sheet #7 — Prepare Whipped Topping
  8. Clinical Job Sheet #8 — Prepare White Cream Sauce
  9. Clinical Job Sheet #9 — Prepare Hollandaise Sauce
  10. Clinical Job Sheet #10 — Prepare Tomato Sauce
  11. Clinical Job Sheet #11 — Prepare Brown Sauce
- E. Test
- F. Answers to test

III. Unit references

A. *Food Preparation Manual*, 6th ed. Oklahoma State University Department of Food, Nutritional, and Institution Administration. Dubuque, Iowa: Kendall/Hunt Publishing Co., 1977.

B. Grimes, Vici, and Jerald Chesser. *Food Service: Production and Service.* Stillwater, Oklahoma: State Department of Vocational and Technical Education/Curriculum and Instructional Materials Center, 1976.

C. Kotschevar, Lendal H. *Standards. Principles, and Techniques in Quantity Food Production,* 3rd ed. Boston: Cahners Books, 1974.

D. Peckham, Gladys C., and Jeanne H. Freeland-Graves. *Foundations of Food Preparation*, 4th ed. New York: Macmillan Publishing Co., Inc., 1979.

E. West, B.B., et al. *Food for Fifty*, 6th ed. New York: John Wiley and Sons, Inc., 1979.

PROTEIN COOKERY I
UNIT IV

INFORMATION SHEET

I. Terms and definitions

   A. Curdle — To change into coagulated (thickened) milk

   B. Emulsifying agent — Substance that causes tiny droplets of fat to remain suspended in liquid

   C. Leavening — Ingredient that makes baked products rise and increase in volume, producing a characteristic lightness

   D. Pasteurization — Process of heating milk to a high temperature to destroy disease-producing bacteria

   E. Roux — Mixture of equal weights of flour and vegetable oil or fat

   (NOTE: Roux is pronounced *roo*.)

   F. Sauce — Liquid mixture added to other foods to enhance flavor

   G. Simmer — To cook in liquid with bubbles forming slowly and breaking at the surface

II. Basic techniques of protein cookery

   A. Cook at low temperatures

   (NOTE: Coagulation of protein occurs at 185°F.)

   B. Cook for minimum length of time

   (NOTE: As the protein continues to coagulate, it contracts and squeezes out moisture.)

III. Effects of cooking protein at high temperatures

   A. Volume decreases

   B. Texture becomes tough and dry

   C. Flavor changes

   D. Appearance becomes less attractive

   E. Nutrient content decreases

INFORMATION SHEET

IV. Functions of eggs in food preparation

- A. Binding

  EXAMPLES: In meatloaf, croquettes

- B. Coating

  EXAMPLES: In coating of crumbs, flour, or meal

  (NOTE: Egg proteins coagulate during frying, minimizing the amount of fat absorbed.)

- C. Leavening

  EXAMPLES: In angel food cake, meringues

  (NOTE: The surface is greatly increased as air is trapped in the cells.)

- D. Thickening

  EXAMPLES: In custards, sauces, puddings

- E. Emulsifying

  EXAMPLES: In mayonnaise, ice cream

- F. Clarifying

  EXAMPLES: In hot broths, coffee

  (NOTE: When egg proteins coagulate, they trap loose particles in the liquid.)

- G. Interfering

  EXAMPLES: In sherbet, divinity

  (NOTE: Tiny air bubbles trapped in the egg keep large masses of ice or sugar crystal from forming.)

- H. Enhancing

  EXAMPLES: In muffins, cakes

  (NOTE: Eggs act as an enhancing agent to improve the texture, color, and taste of muffins and cakes.)

INFORMATION SHEET

V. Quality standards for grades of eggs

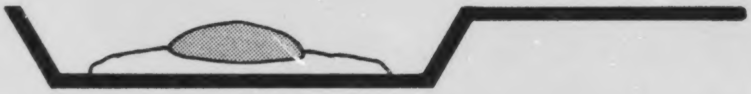
(NOTE: The color of the shell depends on the breed of chicken and has no bearing on nutritive value of the egg. The color of the yolk varies, depending upon the chicken's feed.)

A. Grade AA (Figure 1)

1. Out of its shell, egg covers a small area
2. White is very thick and stands high
3. Yolk is firm and well centered

EXAMPLE:

FIGURE 1

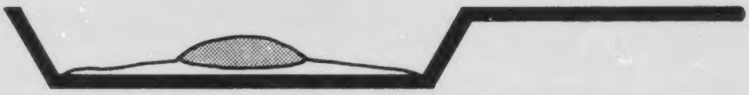


B. Grade A (Figure 2)

1. Out of its shell, egg covers a moderate area
2. White is reasonably thick and stands fairly high
3. Yolk is firm, high, and well centered

EXAMPLE:

FIGURE 2



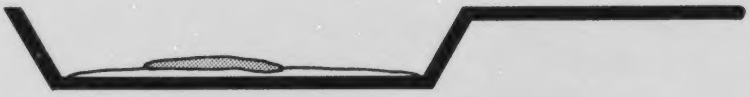
INFORMATION SHEET

C. Grade B (Figure 3)

1. Out of its shell, egg covers a wide area
2. White is thin and watery
3. Yolk is somewhat flattened, enlarged, and off center

EXAMPLE:

FIGURE 3



VI. Egg sizes and minimum weight per dozen

Size	Minimum Weight Per Dozen
Jumbo	30 ounces
Extra large	27 ounces
Large	24 ounces
Medium	21 ounces
Small	18 ounces
Pee wee	15 ounces

VII. Proper egg storage

(NOTE: For best quality, use eggs within a week of purchase. A fresh egg will sink in cold water.)

A. Refrigerate

(NOTE: Eggs lose freshness very quickly at room temperature.)

B. Store in closed containers

(NOTE: Eggshells are porous and pick up odors from other foods.)

C. Place large end of egg up

(NOTE: Placing the large end of the egg up prevents the air cell from moving up toward the yolk.)

INFORMATION SHEET

D. Cover unbroken yolks with water and store in sealed container

E. Beat broken yolks and store in sealed container

F. Store whites as is in sealed container

VIII. Descriptions of processes associated with egg cookery

A. Coagulation — Changes egg whites from a clear, jellylike mass to a soft, white, opaque appearance and texture; caused by heat

(NOTE: The egg yolk and white coagulate at different temperatures. Overheating of the white causes it to lose water, shrink, and toughen; overheating the yolk causes it to be dry and crumbly.)

B. Addition of sugar — Elevates the temperature at which coagulation occurs

C. Addition of salt — Lowers the temperature at which coagulation occurs

D. Addition of acid — Produces a firmer gel and lowers the temperature at which coagulation occurs

EXAMPLE: Add vinegar to water when poaching eggs.

(NOTE: Prolonged heating of an acid egg mixture will thin a product.)

IX. Types of cooked eggs (Clinical Job Sheets #1-#6)

A. Hard- or soft-cooked egg — Cook egg in the shell

B. Coddled egg — Pour boiling water over egg and seal container

C. Poached egg — Cook egg in water just below the boiling point

D. Fried egg — Cook egg in hot butter or fat

E. Shirred or baked egg — Place egg in dish in oven or under broiler

F. Scrambled egg — Stir-fry beaten egg

G. Omelet — Spread beaten egg in frying pan and fold egg over when it reaches desired degree of doneness

H. Souffle — Bake foamy egg and cream sauce mixture

I. Meringue — Brown egg-white foam

INFORMATION SHEET

X. Standards for eggs cooked in the shell (Clinical Job Sheet #4)

   A. Soft-cooked egg

      1. Egg is cooked for three minutes
      2. One-half of white is firm
      3. Yolk is in liquid state

   B. Medium-cooked egg

      1. Egg is cooked for four minutes
      2. White is cooked to yolk
      3. Yolk is in liquid state

   C. Hard-cooked egg

      (NOTE: When cooking in large quantities, the cooking time may vary. Also, personal preferences may change the cooking time.)

      1. Egg is cooked for twelve minutes
      2. White is cooked solid
      3. Yolk is firm

XI. Classifications of cheese

   (NOTE: The following are examples of the most commonly used classes of cheese. The classes are determined by such factors as moisture content, flavor, and processing method.)

   A. Hard grating

      EXAMPLES: Parmesan, Romano

   B. Hard

      EXAMPLES: Cheddar, Swiss, Edam

   C. Semihard

      EXAMPLES: Brick, Muenster

INFORMATION SHEET

D. Soft unripened

EXAMPLES: Cream, cottage

E. Soft ripened

EXAMPLES: Camembert, Brie

XII. Cheese storage suggestions

A. Soft unripened cheeses

1. Refrigerate in a covered container
2. Use within a few days of purchase

B. Hard or semihard cheeses

1. Refrigerate in original wrapper
2. Cover cut cheese with a moist cloth or plastic wrap
3. Seal with hot paraffin wax if stored for long periods of time

(NOTE: Mold that forms on cheese is unappetizing but not harmful; cheese can be cut away 1 inch below the mold before serving.)

XIII. Principles of cheese cookery

A. Processed cheeses are more stable than aged cheeses

(NOTE: Processed cheeses are a mixture of cured and uncured cheeses with emulsifiers added for product uniformity. These processing methods result in a cheese that slices well and blends well in sauces. However, the flavor is not as fully developed as in cured cheeses.)

B. Ripened and processed cheeses blend more easily into sauces than unripened cheeses do

(NOTE: When used for cooking, ripened cheeses should be aged at least three months.)

C. Cheese blends into sauces best at approximately 125°F

D. Grated cheese blends into dishes more easily than block cheese

XIV. Techniques of cheese cookery

A. Cook at a low temperature

INFORMATION SHEET

B. Do not overheat

(NOTE: Overheating causes the cheese to curdle, string, or become hard and tough.)

C. Protect from direct heat

D. Add cheese toppings near end of cooking time

XV. Sanitary controls used in processing milk

A. Pasteurization

B. Grading

(NOTE: Grades of milk are determined by bacterial count.)

XVI. Characteristics of different kinds of milk

A. Whole — Milk for common consumption; contains at least 3.25 percent butterfat

B. Certified — Milk produced under very rigid sanitary conditions

(NOTE: The high cost of producing this milk usually limits its use. It is most often used in special cases of infant or invalid feeding on doctor's orders.)

C. Homogenized — Milk that has been mechanically processed to break up the fat globules so that cream does not rise during storage

D. Chocolate — Whole milk with chocolate syrup added

(NOTE: *Chocolate drink* is made with skim milk; if cocoa, or chocolate syrup made with cocoa, is used, the product must be called *chocolate-flavored milk* or *chocolate-flavored drink*.)

E. Fluid skim — Milk that contains almost no fat, vitamin A, or vitamin D

(NOTE: Skim milk may be fortified with vitamin A and vitamin D.)

F. Fluid low-fat — Partly skimmed milk with 1 to 2 percent butterfat content

G. Cultured — Milk to which a bacterial culture has been added, changing its characteristic flavor and texture

EXAMPLES: Buttermilk, acidophilus milk, yogurt

INFORMATION SHEET

H. Concentrated — Milk from which all or part of the water has been removed

EXAMPLES: Evaporated milk, dry milk, sweetened condensed milk

I. Filled — Skim milk and vegetable fat combined

(NOTE: It is illegal to ship filled milk out of the state where it is processed.)

J. Imitation — Combination of nondairy ingredients made to resemble milk

K. Cream — Milk product with a high fat content

EXAMPLES: Light cream (18 percent milk fat), whipping cream (30 to 36 percent milk fat), sour cream (18 percent milk fat)

XVII. Precautions in storage of milk

A. Fluid milk

1. Keep refrigerated

2. Store in a closed container

3. Keep out of sunlight

(NOTE: Milk is a good source of riboflavin, but riboflavin can be destroyed by sunlight.)

4. Use within one week

B. Dry milk

1. Store at room temperature

(NOTE: Temperatures below 70°F are recommended, especially after the package has been opened.)

2. Use within one year

C. Evaporated milk

1. Store unopened cans at room temperature

2. Refrigerate and cover opened cans

XVIII. Principles of milk cookery

A. Acids cause milk to curdle

INFORMATION SHEET

B. Some substances draw moisture from milk protein and cause curdling

EXAMPLES: Salt, heat

C. When heated, some milk proteins coagulate, causing a scum or scorching

(NOTE: If any scum forms, beat it into the milk rather than discarding it.)

XIX. Guidelines for specific milk cookery techniques (Clinical Job Sheets #7 and #8)

A. Preventing scum

1. Cover tightly during heating
2. Whip to create a foam on top
3. Allow melted fat to cover the surface

B. Preventing scorching

1. Use low heat and stir constantly
2. Heat over water

C. Preventing curdling

1. Add acid-containing foods slowly while stirring
2. Have curdling agent and milk at same temperature before combining

   EXAMPLE: When making cream of tomato soup, heat milk before combining it with tomato mixture.

3. Thicken milk slightly before adding curdling agent

D. Using dry milk

1. Sift with other dry ingredients for use in baking
2. Reconstitute for use in soups, sauces, or custards

   (NOTE: When dry milk is used in sauces, you may need to reduce the amount of cornstarch or flour used. Dry milk has the least stability, but its stability can be greatly improved if it is reconstituted one day before use.)

E. Using evaporated milk

1. Dilute with an equal volume of water for use as whole milk

   (NOTE: Evaporated milk is the most stable milk and forms a thicker gel.)

INFORMATION SHEET

2. Do not use without reconstituting unless specified in recipe

XX. Color and ingredients of basic sauces (Clinical Job Sheets #8-#11)

Basic Sauce	**Color**	**Ingredients**
Cream	White	Veal or chicken stock (optional) + Roux made with butter or margarine + Cream or milk
Tomato	Red	Tomato product + Vegetables + Roux
Brown	Brown	Brown stock + Roux
Hollandaise	Yellow	Margarine or butter + Lemon juice + Egg yolks

XXI. Types of food commonly served with basic sauces (Clinical Job Sheets #8-#11)

A. Cream

EXAMPLES: Cheese sauce, white sauce

1. Fish
2. Eggs
3. Chicken
4. Vegetables

B. Tomato

1. Meat
2. Poultry

INFORMATION SHEET

   3. Fish

C. Brown

   1. Meat

   2. Game

D. Hollandaise

   1. Vegetables

   2. Fish

   3. Eggs

PROTEIN COOKERY I
UNIT IV

CLINICAL JOB SHEET #1 — PREPARE A CHEESE OMELET

I. Equipment

  A. Grater

  B. Mixer with wire whip attachment and mixing bowl

  C. Two-quart mixing bowl

  D. Two full-length steam table pans, 2 inches deep

  E. Potholders

  F. Scales or measuring cups

  G. Oven

  H. Range

  I. Saucer

  J. Four-quart saucepan

  K. Two large baking pans

  L. Rubber spatula

  M. Mixing spoon

  N. Clean cloth

  O. Wire whip

II. Ingredients

(NOTE: The following ingredients will yield fifty 3-ounce portions.)

  A. Eggs, 24

  B. Cheddar cheese, 12 oz or 3 c

  C. Milk, 3 qt

  D. Salt, 2 T

  E. Pepper to taste, 1/2 t

CLINICAL JOB SHEET #1

F. Butter or margarine, 12 oz or 1½ c

G. Flour, 8 oz or 1 c

H. Oil, enough to grease pans

I. Water

III. Procedure

A. Grate cheese

B. Weigh or measure cheese

C. Break egg yolks into saucer one at a time, separating whites

(NOTE: Allow most of egg white to drain into saucer. Be careful not to get any egg yolk in the white.)

D. Place egg yolks in 2-quart mixing bowl

E. Beat egg yolks by hand with wire whip

F. Place egg whites in mixing bowl on mixer

G. Melt butter or margarine in small saucepan on range

H. Turn heat to low

I. Add flour, salt, and pepper to melted margarine or butter

J. Stir mixture with spoon until roux is smooth

K. Add milk slowly

L. Stir constantly with wire whip until smooth and thick

M. Add egg yolks to white sauce mixture

N. Mix well with wire whip

O. Remove saucepan from heat

P. Beat egg whites in mixer with wire whip until they form rounded peaks

Q. Fold egg whites into egg yolk mixture with a rubber spatula

R. Grease steam table pans with oil

S. Pour half of mixture into each steam table pan

T. Sprinkle each pan with half of grated cheese

CLINICAL JOB SHEET #1

U Place steam table pans in large baking pans

V. Pour about 1 inch of water into large baking pans

W. Bake at 325°F for forty-five minutes

(NOTE: Omelets should not be held before serving.)

X. Return ingredients and equipment to their proper places and clean work area

CLINICAL JOB SHEET #1

IV. Product evaluation — Cheese Omelet

A. Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

B. What techniques should be improved?

1. Measuring — ______________________________

____

2. Temperature of cookery — ______________________________

____

3. Preparation — ______________________________

____

C. Circle the statement that describes your rating of the portion size.

Too large　　Adequate　　Too small

Comments: ______________________________

____

____

PROTEIN COOKERY I
UNIT IV

CLINICAL JOB SHEET #2 — PREPARE SCRAMBLED EGGS

I. Equipment

- A. Electric mixer
- B. Five-gallon mixing bowl
- C. Wire whip mixer attachment
- D. One-quart liquid measure
- E. Two half steam table pans, 2 to 4 inches deep
- F. Oven, steamer, or grill
- G. Spoon
- H. Spatula
- I. Clean cloth

II. Ingredients

(NOTE: These ingredients will yield fifty 3-ounce portions.)

- A. Eggs, 75
- B. Milk, 1½ qt
- C. Salt, 2 T
- D. Butter or margarine, 8 oz or 1 c

III. Procedure

- A. Steamer or oven method
    1. Melt 4 ounces butter or margarine in each of the two steam table pans
    2. Break eggs into liquid measure
    3. Pour eggs into mixing bowl

CLINICAL JOB SHEET #2

4. Attach mixing bowl and whip to mixer
5. Beat eggs slightly on medium speed
6. Add milk and salt
7. Beat until blended
8. Pour egg mixture evenly into the two pans
9. Steam six to eight minutes at 5 pounds pressure or to desired degree of doneness; or bake about twenty minutes at 350°F
10. Stir once after ten minutes of cooking
11. Fluff with a spoon before serving
12. Return ingredients and equipment to their proper places and clean work area

B. Grill method

1. Melt 4 ounces of butter or margarine on grill
2. Follow steps 2 through 7 as given for steamer or oven method
3. Pour half of egg mixture onto grill
4. Use a consistent stirring and turning action on eggs to prevent scorching
5. Place eggs in steam table pan when desired degree of doneness is reached

   (NOTE: To hold on steam table, put a deeper steam table pan containing hot water in the well on the steam table. Place the pan containing the eggs in the deeper pan so that the eggs are kept warm over water to prevent scorching. Covering the eggs tightly or holding for long periods at too high a temperature can cause them to turn green.)

6. Melt margarine and cook remaining egg mixture
7. Return ingredients and equipment to their proper places and clean work area

CLINICAL JOB SHEET #2

IV. Product evaluation — Scrambled Eggs

A. Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

B. What techniques should be improved?

1. Measuring — ______________________________

____

2. Temperature of cookery — ______________________________

____

3. Preparation — ______________________________

____

C. Circle the statement that describes your rating of the portion size.

Too large Adequate Too small

Comments:______________________________

____

____

PROTEIN COOKERY I
UNIT IV

CLINICAL JOB SHEET #3 — PREPARE FRIED EGGS

I. Equipment

   A. Skillet or grill

   B. Spatula

   C. Clean cloth

II. Ingredients

   (NOTE: Ingredients will yield ten servings, one egg per serving.)

   A. Eggs, 10

   B. Fat, small amount

   C. Salt and pepper to taste

III. Procedure

   A. Preheat cooking skillet or grill

   B. Add fat

      (NOTE: The hot fat starts coagulation and keeps the egg from spreading.)

   C. Crack egg

   D. Slide egg onto cooking surface

   E. Cook on low heat

   F. Turn egg, depending on style of egg desired

   G. Remove egg

   H. Salt and pepper to taste

   I. Return ingredients and equipment to their proper places and clean work area

CLINICAL JOB SHEET #3

IV. Product evaluation — Fried Eggs

A. Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

B. What techniques should be improved?

1. Measuring — ____________________

____

2. Temperature of cookery — ____________________

____

3. Preparation — ____________________

____

C. Circle the statement that describes your rating of the portion size.

Too large   Adequate   Too small

Comments: ____________________

____

____

PROTEIN COOKERY I
UNIT IV

CLINICAL JOB SHEET #4 — PREPARE HARD-COOKED EGGS

I. Equipment

   A. Perforated insert or basket

   B. Steam-jacketed kettle, stockpot, or steamer

   C. Steamer pan

   D. Clean cloth

II. Ingredients

   (NOTE: Ingredients will yield ten servings, one egg per serving.)

   A. Eggs, 10

   B. Water

III. Procedure

   A. Steam-jacketed kettle or stockpot method

      1. Place eggs in perforated insert

      2. Set insert in cold water

      3. Bring water to boil

      4. Simmer for twelve minutes

         (NOTE: For soft-cooked eggs, simmer for three to four minutes.)

      5. Remove from water

      6. Immerse eggs in cold water

         (NOTE: Immersion in cold water prevents discoloration of the outside of the yolk.)

      7. Roll eggs between hands to loosen shell

      8. Peel eggs, starting at large end

         (NOTE: Peel eggs under running water if shell is difficult to remove.)

CLINICAL JOB SHEET #4

9. Return equipment and ingredients to their proper places and clean work area

B. Steamer method

1. Place eggs in steamer pan
2. Steam at 5 pounds pressure for twenty-five to thirty minutes
3. Repeat steps 6 through 9 of steam-jacketed kettle or stockpot method

CLINICAL JOB SHEET #4

IV. Product evaluation — Hard-Cooked Eggs

A. Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

B. What techniques should be improved?

1. Measuring — ____

2. Temperature of cookery — __________________________________

3. Preparation — ____

C. Circle the statement that describes your rating of the portion size.

Too large Adequate Too small

Comments: ____

PROTEIN COOKERY I
UNIT IV

CLINICAL JOB SHEET #5 — PREPARE POACHED EGGS

I. Equipment

A. Skillet or flat-bottomed pan, 4 inches deep

B. Perforated spoon or spatula

C. Saucer

D. Clean cloth

E. Range

II. Ingredients

(NOTE: Ingredients will yield ten servings, one egg per serving.)

A. Eggs, 10

B. Vinegar, 2 T

C. Salt, 1 t

D. Water

III. Procedure

A. Fill pan 2 inches deep with water

B. Add salt and vinegar

(NOTE: The addition of salt and vinegar retards spread of egg.)

C. Heat water, salt, and vinegar until mixture simmers

(NOTE: Boiling water will result in ragged eggs and tough texture.)

D. Crack eggs individually into a saucer

E. Slide eggs into pan near the edge

(NOTE: Sliding the eggs into the pan helps keep the yolk near the center of the egg.)

F. Cook three to five minutes

CLINICAL JOB SHEET #5

G. Slide slotted spoon or spatula under eggs and remove

H. Serve

I. Return ingredients and equipment to their proper places and clean work area

CLINICAL JOB SHEET #5

IV. Product evaluation — Poached Eggs

A. Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

B. What techniques should be improved?

1. Measuring — ______________________________

____

2. Temperature of cookery — ______________________________

____

3. Preparation — ______________________________

____

C. Circle the statement that describes your rating of the portion size.

Too large Adequate Too small

Comments: ______________________________

____

____

PROTEIN COOKERY I
UNIT IV

CLINICAL JOB SHEET #6 — PREPARE MERINGUE

I. Equipment

- A. Three-quart mixing bowl
- B. Rotary beater or electric mixer with wire whip attachment
- C. Saucer
- D. Measuring cups
- E. Sealed container
- F. Clean cloth

II. Ingredients

(NOTE: These ingredients will yield enough meringue for eight 8-inch pies.)

- A. Egg whites, 1 lb or 2 c or whites of 17 eggs
- B. Sugar, 1/2 lb or 2 c
- C. Water
- D. Salt, 1/2 t
- E. Cream pies suitable for a meringue

III. Procedure

- A. Crack egg
- B. Hold over saucer and break egg apart carefully
- C. Allow most of egg white to drain into saucer

  (NOTE: Be careful not to get any egg yolk in the white. Also be sure that the saucer, bowl, and beaters are clean and free of any oil or grease; these substances interfere with the formation of the foam.)
- D. Pour egg white into mixing bowl
- E. Repeat process for each egg
- F. Place egg yolks in sealed container and cover with a small amount of water

CLINICAL JOB SHEET #6

G. Store egg yolks in refrigerator for future use

H. Beat egg whites slightly

I. Add sugar to egg whites

(NOTE: For soft meringues, add 2 tablespoons sugar for each egg white; for hard meringues, add as much as ¼ cup sugar for each egg.)

J. Beat egg whites and sugar with beater until glossy peaks are formed

(CAUTION: Do not overbeat.)

K. Place on cooled pie and spread to the edges, making sure to touch the crust all around

L. Bake at 375°F until light brown

(NOTE: This temperature seems to aid in reducing the liquid that accumulates under meringue and sometimes causes it to slip off the pie.)

M. Cool before serving

N. Return ingredients and equipment to their proper places and clean work area

CLINICAL JOB SHEET #6

IV. Product evaluation — Meringue

A. Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

B. What techniques should be improved?

1. Measuring — ______________________________

____

2. Temperature of cookery — ______________________________

____

3. Preparation — ______________________________

____

C. Circle the statement that describes your rating of the portion size.

Too large Adequate Too small

Comments: ______________________________

____

____

PROTEIN COOKERY I
UNIT IV

CLINICAL JOB SHEET #7 — PREPARE WHIPPED TOPPING

I. Equipment

- A. Three-quart mixing bowl, chilled
- B. Rotary beater or electric mixer with chilled beaters or whip attachment
- C. Clean cloth

II. Ingredients

(NOTE: See package label for number of servings and portion size.)

- A. Whipped topping

  (NOTE: There are many good brands of whipped topping available. Consult individual instructions for brand used.)

- B. Milk or water

III. Procedure

- A. Pour chilled whipped topping into chilled mixing bowl
- B. Add milk or water according to instructions for brand used
- C. Beat according to instructions for brand used
- D. Refrigerate until served
- E. Return ingredients and equipment to their proper places and clean work area

CLINICAL JOB SHEET #7

IV. Product evaluation — Whipped Topping

A. Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

B. What techniques should be improved?

1. Measuring — ____________________

   ____

2. Temperature of cookery — ____________________

   ____

3. Preparation — ____________________

   ____

C. Circle the statement that describes your rating of the portion size.

Too large   Adequate   Too small

Comments: ____________________

____

____

PROTEIN COOKERY I
UNIT IV

CLINICAL JOB SHEET #8 — PREPARE WHITE CREAM SAUCE

I. Equipment

A. Eight-quart saucepan

B. Wire whip

C. Spoon

D. Measuring spoons

E. Scale or dry measure

F. Clean cloth

G. Range

II. Ingredients

(NOTE: These ingredients will yield approximately fifty servings.)

	Consistency of Sauce			
	Thin	Medium	Heavy	Extra Heavy
Milk	4 qt	4 qt	4 qt	4 qt
Butter or margarine	8 oz or 1 c	1 lb or 2 c	1 lb or 2 c	1 lb 4 oz or 2 ½ c
Flour	4 oz or 1 c	8 oz or 2 c	12 oz or 3 c	1 lb 4 oz or 5 c
Salt	1½ T	1½ T	1½ T	1½ T

III. Procedure

(NOTE: Consult a reliable cookbook for other methods of preparing white sauces.)

A. Melt butter or margarine in saucepan

B. Add flour and salt

C. Stir with spoon until smooth roux is obtained

CLINICAL JOB SHEET #8

D. Turn heat to low

E. Add milk slowly

F. Stir constantly with wire whip until smooth and thick

G. Serve

H. Return equipment and ingredients to their proper places and clean work area

IV. Product evaluation

After preparing white cream sauce, evaluate your product with your clinical instructor by completing the score card below and answering the questions. Write your answers in the spaces provided.

A. Score card for white cream sauce

	Desirable Characteristics	Excellent (5 pts)	Good (4 pts)	Fair (3 pts)	Poor (2 pts)
Appearance	Free of lumps Pleasing				
Flavor	Rich No flour taste				
Temperature Smoothness	Hot Free of lumps Drops freely from spoon				
Color	Bright Free of streaks				

Total Points______________

Scoring:

20-25 points ....Servable; good technique
15-20 points ....Check technique; serve with improvement in mind
10-15 points ....Check technique; do not serve

CLINICAL JOB SHEET #8

B. Was the product acceptable?

____

____

C. If the product was not acceptable, explain why.

____

____

D. What techniques should be improved?

____

1. Measuring —________________________________

   ____

2. Temperature of cookery —________________________

   ____

3. Mixing —____________________________________

   ____

4. Preparation —________________________________

   ____

PROTEIN COOKERY I
UNIT IV

CLINICAL JOB SHEET #9 — PREPARE HOLLANDAISE SAUCE

I. Equipment

- A. Double boiler
- B. Wire whip
- C. Spoon
- D. Measuring spoons
- E. Scale or measuring cups
- F. Clean cloth
- G. Range

II. Ingredients

(NOTE: Margarine or butter will be added three times.)

	Yield Ten 1-oz portions	Yield Fifty 1-oz portions
Margarine or butter (1)	2 oz or 1 c	10 oz or $1\frac{1}{4}$ c
Lemon juice	$1\frac{1}{2}$ T	$7\frac{1}{2}$ T
Egg yolks	3	15
Margarine or butter (2)	2 oz or $\frac{1}{4}$ c	10 oz or $1\frac{1}{4}$ c
Margarine or butter (3)	2 oz or $\frac{1}{4}$ c	10 oz or $1\frac{1}{4}$ c
Salt	Few grains	1 t
Cayenne pepper	Few grains	1 t

III. Procedure

A. Place water in bottom of double boiler

(NOTE: The water should be $\frac{1}{2}$ inch below the insert.)

CLINICAL JOB SHEET #9

B. Place unmelted margarine or butter, lemon juice, and egg yolks in top of double boiler

C. Cook slowly

D. Beat constantly with wire whip until mixture thickens

E. Add second portion of margarine or butter

F. Continue to beat with wire whip until mixture thickens

G. Add third portion of margarine or butter and seasonings

H. Beat until thickened

I. Serve immediately

(NOTE: Hollandaise sauce must be held between 160°F to 180°F for no longer than forty-five minutes. Hold with care. Cook over low heat and cook slowly. Discard sauce after ninety minutes.)

J. Return ingredients and equipment to their proper places and clean work area

IV. Product evaluation

After preparing hollandaise sauce, evaluate your product with your clinical instructor by completing the score card below and answering the questions. Write your answers in the spaces provided.

A. Score card for hollandaise sauce

	Desirable Characteristics	Excellent (5 pts)	Good (4 pts)	Fair (3 pts)	Poor (2 pts)
Appearance	Free of lumps Pleasing				
Flavor	Rich				
Temperature	Hot				
Smoothness	Free of lumps Drops freely from spoon				
Color	Bright Free of streaks				

Total Points______________

CLINICAL JOB SHEET #9

Scoring:

20-25 points	Servable; good technique
15-20 points	Check technique; serve with improvement in mind
10-15 points	Check technique; do not serve

B. Was the product acceptable?

____

____

C. If the product was not acceptable, explain why.

____

____

D. What techniques should be improved?

____

1. Measuring —________________________________

   ____

2. Temperature of cookery —________________________

   ____

3. Mixing —___________________________________

   ____

4. Preparation —_______________________________

   ____

PROTEIN COOKERY I
UNIT IV

CLINICAL JOB SHEET #10 — PREPARE TOMATO SAUCE

I. Equipment

- A. Two 3-quart stockpots
- B. Bowl for serving
- C. Wire whip
- D. Spoon
- E. Measuring spoons
- F. Scale or measuring cups
- G. Clean cloth
- H. Cutting board
- I. Knife
- J. Range

II. Ingredients

(NOTE: These ingredients will yield 2 quarts or thirty-two 1-ounce portions.)

- A. Margarine or butter, 6 oz or 3/4 c
- B. Flour, 4 oz or 1 c
- C. Tomato juice, 2 qt
- D. Onion, 4 oz or 1/2 c chopped
- E. Sugar, 2 T
- F. Salt, 1 t
- G. Pepper, 1/4 t
- H. Worcestershire sauce, 1 t

III. Procedure

- A. Chop onions on cutting board

CLINICAL JOB SHEET #10

B. Combine tomato juice, chopped onions, and seasonings in second stockpot

C. Simmer tomato juice mixture for twenty minutes

D. Melt margarine or butter in stockpot

E. Add flour

F. Stir with spoon to make a smooth roux

G. Add mixture gradually to blended margarine and flour while stirring with wire whip

H. Cook until thickened and smooth

I. Serve

J. Return ingredients and equipment to their proper places and clean work area

IV. Product evaluation

After preparing tomato sauce, evaluate your product with your clinical instructor by completing the score card below and answering the questions. Write your answers in the spaces provided.

A. Score card for tomato sauce

	Desirable Characteristics	Excellent (5 pts)	Good (4 pts)	Fair (3 pts)	Poor (2 pts)
Appearance	Free of lumps Pleasing				
Flavor	Rich				
Temperature	Hot				
Smoothness	Free of lumps Drops freely from spoon				
Color	Bright Free of streaks				

Total Points____________

CLINICAL JOB SHEET #10

Scoring:

20-25 points ....Servable; good technique
15-20 points ....Check technique; serve with improvement in mind
10-15 points ....Check technique; do not serve

B. Was the product acceptable?

____

____

C. If the product was not acceptable, explain why.

____

____

D. What techniques should be improved?

____

1. Measuring —______________________________________

   ____

2. Temperature of cookery —___________________________

   ____

3. Mixing —____

   ____

4. Preparation —____________________________________

   ____

PROTEIN COOKERY I
UNIT IV

CLINICAL JOB SHEET #11 — PREPARE BROWN SAUCE

I. Equipment

A. Two $1\frac{1}{2}$-gallon stockpots

B. Wire whip

C. Spoon

D. Measuring spoons

E. Scale

F. Clean cloth

G. Gallon measure

H. Cutting board

I. Knife

J. China cap

II. Ingredients

(NOTE: These ingredients should yield 1 gallon or sixty-four 1-ounce portions.)

A. Beef stock, 1 gal

B. Onion, 8 oz or 1 c thinly sliced

C. Salt, $1\frac{1}{2}$ T

D. Pepper, $\frac{1}{2}$ t

E. Margarine or butter, 12 oz or $1\frac{1}{2}$ c

F. Flour, 12 oz or 3 c

III. Procedure

A. Slice onion on cutting board

B. Add sliced onion and seasonings to meat stock in stockpot

C. Simmer for ten minutes

CLINICAL JOB SHEET #11

D. Strain through china cap

E. Melt margarine or butter in another stockpot

F. Blend flour into margarine with wire whip until smooth

G. Cook flour/margarine mixture over low heat until browning occurs

H. Reheat strained stock in stockpot originally used

I. Add hot stock to flour mixture while stirring

J. Cook until thick

K. Stir with wire whip until smooth

L. Serve

M. Return ingredients and equipment to their proper places and clean work area

IV. Product evaluation

After preparing brown sauce, evaluate your product with your clinical instructor by completing the score card below and answering the questions. Write your answers in the spaces provided.

A. Score card for brown sauce

	Desirable Characteristics	Excellent (5 pts)	Good (4 pts)	Fair (3 pts)	Poor (2 pts)
Appearance	Free of lumps Pleasing				
Flavor	Rich				
Temperature	Hot				
Smoothness	Free of lumps Drops freely from spoon				
Color	Bright Free of streaks				

Total Points__________

CLINICAL JOB SHEET #11

Scoring:

20-25 points	Servable; good technique
15-20 points	Check technique; serve with improvement in mind
10-15 points	Check technique; do not serve

B. Was the product acceptable?

C. If the product was not acceptable, explain why.

D. What techniques should be improved?

1. Measuring —
2. Temperature of cookery —
3. Mixing —
4. Preparation —

PROTEIN COOKERY I
UNIT IV

TEST

NAME ____ SCORE ________________

1. Match to their correct definitions terms associated with egg and dairy product cookery. Write the correct numbers in the blanks.

______a. Liquid mixture added to other foods to enhance flavor

______b. Ingredient that makes baked products rise and increase in volume, producing a characteristic lightness

______c. To cook in liquid with bubbles forming slowly and breaking at the surface

______d. To change into coagulated (thickened) milk

______e. Mixture of equal weights of flour and vegetable oil or fat

______f. Substance that causes tiny droplets of fat to remain suspended in liquid

______g. Process of heating milk to a high temperature to destroy disease-producing bacteria

1. Roux
2. Leavening
3. Curdle
4. Emulsifying agent
5. Pasteurization
6. Sauce
7. Simmer

2. List basic techniques of protein cookery.

a. ____

b. ____

3. Describe the effects of cooking protein at high temperatures.

____

____

____

____

____

TEST

4. Select from the following list the functions of eggs in food preparation. Write an "X" in the blank before each correct answer.

______a. Curdling

______b. Interfering

______c. Coating

______d. Thinning

______e. Binding

______f. Smoothing

______g. Reducing

______h. Leavening

______i. Clarifying

______j. Thickening

______k. Enhancing

______l. Pasteurizing

______m. Emulsifying

5. Match grades of eggs to their correct quality standards. Write the correct numbers in the blanks.

______a. Out of its shell, egg covers a moderate area; white is reasonably thick and stands fairly high; yolk is firm, high, and well centered

______b. Out of its shell, egg covers a small area; white is very thick and stands high; yolk is firm and well centered

______c. Out of its shell, egg covers a wide area; white is thin and watery; yolk is somewhat flattened, enlarged, and off center

1. Grade B
2. Grade A
3. Grade AA

TEST

6. Match egg sizes to their correct minimum weight per dozen. Write the correct numbers in the blanks.

______a. 15 ounces

______b. 27 ounces

______c. 30 ounces

______d. 18 ounces

______e. 24 ounces

______f. 21 ounces

1. Jumbo
2. Extra large
3. Pee wee
4. Medium
5. Small
6. Large

7. Describe proper egg storage.

____

____

____

____

____

____

8. Match processes associated with egg cookery to their correct descriptions. Write the correct numbers in the blanks.

______a. Elevates the temperature at which coagulation occurs

______b. Produces a firmer gel and lowers the temperature at which coagulation occurs

______c. Lowers the temperature at which coagulation occurs

______d. Changes egg whites from a clear, jellylike mass to a soft, white, opaque appearance and texture; caused by heat

1. Coagulation
2. Addition of sugar
3. Addition of salt
4. Addition of acid

TEST

9. Identify types of cooked eggs. Write the correct types in the blanks.

Hard- or soft-cooked egg
Coddled egg
Poached egg
Fried egg
Shirred or baked egg
Scrambled egg
Omelet
Souffle
Meringue

______________________ a. Brown egg-white foam

______________________ b. Cook egg in the shell

______________________ c. Stir-fry beaten egg

______________________ d. Pour boiling water over egg and seal container

______________________ e. Bake foamy egg and cream sauce mixture

______________________ f. Cook egg in water just below the boiling point

______________________ g. Cook egg in hot butter or fat

______________________ h. Spread beaten egg in frying pan and fold egg over when it reaches desired degree of doneness

______________________ i. Place egg in dish in oven or under broiler

10. Match eggs cooked in the shell to their correct standards. Write the correct numbers in the blanks.

______ a. Egg is cooked for three minutes; one-half of white is firm; yolk is in liquid state

______ b. Egg is cooked for twelve minutes; white is cooked solid; yolk is firm

______ c. Egg is cooked for four minutes; white is cooked to yolk; yolk is in liquid state

1. Hard-cooked egg
2. Soft-cooked egg
3. Medium-cooked egg

11. List classifications of cheese.

a. ____

b. ____

c. ____

d. ____

e. ____

TEST

12. Describe proper cheese storage.

a. Soft unripened cheeses — ____

____

____

b. Hard or semihard cheeses — ______________________________________

____

____

13. Select from the following list principles of cheese cookery. Write an "X" in the blank before each correct answer.

______a. Ripened and processed cheeses blend more easily into sauces than unripened cheeses do

______b. Hard cheeses are best suited for use in casseroles

______c. Processed cheeses are more stable than aged cheeses

______d. Cheeses that have ripened longer have a more mellow flavor and are best for grating

______e. Overripened cheeses should always be used for sauces

______f. Cheese blends into sauces best at approximately 125°F

______g. Grated cheese blends into dishes more easily than block cheese

14. List cheese cookery techniques.

a. ____

b. ____

c. ____

d. ____

15. List the sanitary controls used in processing milk.

a. ____

b. ____

TEST

16. Match kinds of milk to their correct characteristics. Write the correct numbers in the blanks.

______a. Milk produced under very rigid sanitary conditions

______b. Milk for common consumption; contains at least 3.25 percent butterfat

______c. Whole milk with chocolate syrup added

______d. Milk that has been mechanically processed to break up the fat globules so that cream does not rise during storage

______e. Partly skimmed milk with 1 to 2 percent butterfat content

______f. Milk that contains almost no fat, vitamin A, or vitamin D

______g. Milk from which all or part of the water has been removed

______h. Milk to which a bacterial culture has been added, changing its characteristic flavor and texture

______i. Combination of nondairy ingredients made to resemble milk

______j. Milk product with a high fat content

______k. Skim milk and vegetable fat combined

1. Cream
2. Imitation
3. Filled
4. Concentrated
5. Cultured
6. Fluid low-fat
7. Fluid skim
8. Chocolate
9. Whole
10. Certified
11. Homogenized

17. Describe precautions in the storage of milk.

a. Fluid milk — ____

____

____

____

b. Dry milk — ____

____

TEST

c. Evaporated milk — ____

____

18. Select from the following list the principles of milk cookery. Write an "X" in the blank before each correct answer.

______a. Sugar causes milk to curdle

______b. When heated, some milk proteins coagulate, causing a scum or scorching

______c. Acids cause milk to curdle

______d. Rennet tablets cause milk sugars to break down, giving milk a sweeter taste

______e. Evaporated milk not stored in the refrigerator curdles

______f. Some substances draw moisture from milk protein and cause curdling

19. Identify guidelines for specific milk cookery techniques. Write the correct techniques in the blanks.

Preventing scum
Preventing scorching
Preventing curdling
Using dry milk
Using evaporated milk

______________________a. Add acid-containing foods slowly while stirring; have curdling agent and milk at same temperature before combining; thicken milk slightly before adding curdling agent

______________________b. Sift with other dry ingredients for use in baking; reconstitute for use in soups, sauces, or custards

______________________c. Cover tightly during heating; whip to create a foam on top; allow melted fat to cover the surface

______________________d. Use low heat and stir constantly; heat over water

______________________e. Dilute with an equal volume of water for use as whole milk; do not use without reconstituting unless specified in recipe

TEST

20. Name color and ingredients of basic sauces.

Basic Sauce	Color	Ingredients
Cream	White	Veal or chicken stock (optional) + a. ______________ + Cream or milk
Tomato	b. ________	Tomato product + Vegetables + Roux
Brown	Brown	Brown stock + Roux
Hollandaise	c. ________	Margarine or butter + Lemon juice + d. ______________

21. Match basic sauces to the types of food with which they are commonly served. Write the correct numbers in the blanks.

______a. Fish, eggs, chicken, vegetables
______b. Vegetables, fish, eggs
______c. Meat, game
______d. Meat, poultry, fish

1. Hollandaise
2. Cream
3. Tomato
4. Brown

(NOTE: Test question 22 lists the job sheets. They are an important part of this test. If they have not been completed, check with your instructor.)

22. Demonstrate the ability to

a. Prepare a cheese omelet.

b. Prepare scrambled eggs.

c. Prepare fried eggs.

TEST

d. Prepare hard-cooked eggs.

e. Prepare poached eggs.

f. Prepare meringue.

g. Prepare whipped topping.

h. Prepare white cream sauce.

i. Prepare hollandaise sauce.

j. Prepare tomato sauce.

k. Prepare brown sauce.

PROTEIN COOKERY I
UNIT IV

ANSWERS TO TEST

(NOTE: It may be helpful to use your blank test to make a test key. The points designated in parentheses are intended to be guidelines and should be adapted to meet the needs of each teaching/learning situation. The point total for the entire test is 786. The point total for questions 1-21 is 256; the point total for question 22 is 530.)

1. (14 points)

   a. 6

   b. 2

   c. 7

   d. 3

   e. 1

   f. 4

   g. 5

2. (4 points)

   Answer should include the following

   a. Cook at low temperatures

   b. Cook for minimum length of time

3. (15 points)

   Description should include the following

   a. Volume decreases

   b. Texture becomes tough and dry

   c. Flavor changes

   d. Appearance becomes less attractive

   e. Nutrient content decreases

4. (24 points)

   b, c, e, h, i, j, k, m

ANSWERS TO TEST

5. (6 points)

a. 2

b. 3

c. 1

6. (12 points)

a.	3	d.	5
b.	2	e.	6
c.	1	f.	4

7. (18 points)

Description should include the following

a. Refrigerate

b. Store in closed containers

c. Place large end of egg up

d. Cover unbroken yolks with water and store in sealed container

e. Beat broken yolks and store in sealed container

f. Store whites as is in sealed container

8. (8 points)

a.	2	c.	3
b.	4	d.	1

9. (18 points)

a.	Meringue	f.	Poached egg
b.	Hard- or soft-cooked egg	g.	Fried egg
c.	Scrambled egg	h.	Omelet
d.	Coddled egg	i.	Shirred or baked egg
e.	Souffle		

ANSWERS TO TEST

10. (6 points)

    a. 2

    b. 1

    c. 3

11. (15 points)

    Answer should include the following

    a. Hard grating

    b. Hard

    c. Semihard

    d. Soft unripened

    e. Soft ripened

12. (8 points)

    Description should include the following

    a. Soft unripened cheeses

        (1) Refrigerate in a covered container

        (2) Use within a few days of purchase

    b. Hard or semihard cheeses

        (1) Refrigerate in original wrapper

        (2) Cover cut cheese with a moist cloth or plastic wrap

        (3) Seal with hot paraffin if stored for long periods of time

13. (16 points)

    a, c, f, g

ANSWERS TO TEST

14. (8 points)

    a. Cook at a low temperature

    b. Do not overheat

    c. Protect from direct heat

    d. Add cheese toppings near end of cooking time

15. (2 points)

    Answer should include the following

    a. Pasteurization

    b. Grading

16. (22 points)

    a. 10

    b. 9

    c. 8

    d. 11

    e. 6

    f. 7

    g. 4

    h. 5

    i. 2

    j. 1

    k. 3

17. (18 points)

    Description should include the following

    a. Fluid milk

        (1) Keep refrigerated

        (2) Store in closed container

        (3) Keep out of sunlight

        (4) Use within one week

ANSWERS TO TEST

b. Dry milk

  (1) Store at room temperature

  (2) Use within one year

c. Evaporated milk

  (1) Store unopened cans at room temperature

  (2) Refrigerate and cover opened cans

18. (12 points)

b, c, f

19. (10 points)

a. Preventing curdling

b. Using dry milk

c. Preventing scum

d. Preventing scorching

e. Using evaporated milk

20. (12 points)

a. Roux made with butter or margarine

b. Red

c. Yellow

d. Egg yolks

21. (8 points)

a. 2

b. 1

c. 4

d. 3

ANSWERS TO TEST

22. Performance skills evaluated to the satisfaction of the clinical instructor

    a. (75 points)
    b. (50 points)
    c. (35 points)
    d. (35 points)
    e. (50 points)
    f. (50 points)
    g. (35 points)
    h. (50 points)
    i. (50 points)
    j. (50 points)
    k. (50 points)

PROTEIN COOKERY II
UNIT V

UNIT OBJECTIVE

After completing this unit the student should be able to understand and practice the principles of protein cookery. The student should also be able to prepare high quality meat, fish, and poultry dishes. This knowledge will be shown by completing job sheets and unit test with a minimum score of 85 percent.

SPECIFIC OBJECTIVES

After completing this unit the student should be able to

1. Match terms associated with meat, fish, and poultry cookery to their correct definitions.
2. Describe the primary uses of meat cooking methods.
3. Distinguish between dry heat and moist heat cooking methods.
4. Identify primal cuts of beef and pork.
5. Match primal sources to retail cuts of beef.
6. Distinguish between Federal Grading Stamp and Federal Inspection Stamp.
7. Arrange federal grades of beef in order of desirability.
8. Identify fabricated and preportioned meats by their specifications.
9. Select from a list causes of meat shrinkage.
10. State reasons for avoiding meat shrinkage.
11. List common meat tenderizing methods.
12. State guidelines for beef cookery.
13. Distinguish between moist heat and dry heat cooking methods for retail cuts of beef.
14. Describe characteristics of various degrees of doneness for beef steaks and roasts.
15. Select from a list preparation and cooking techniques that produce a quality pork product.
16. Describe the characteristics of well-done pork.
17. List common types of poultry.
18. Identify common classes of chicken and turkey.

OBJECTIVE SHEET

19. Discuss poultry selection.

20. Select from a list guidelines for poultry cookery.

21. Select from a list guidelines for purchasing fish.

22. Identify market forms of fish.

23. Select from a list guidelines for fish cookery.

24. Distinguish between advantages and disadvantages of vegetable proteins as meat substitutes.

25. List vegetable protein meat substitutes.

26. Demonstrate the ability to

    a. Prepare beef patties.

    b. Prepare beef stew.

    c. Prepare pork roast.

    d. Cut up whole chicken.

    e. Prepare deep fat fried chicken.

    f. Prepare turkey.

    g. Prepare baked fish fillets.

PROTEIN COOKERY II
UNIT V

SUGGESTED ACTIVITIES

I. Suggested activities

A. Order materials to supplement unit.

(NOTE: All films are also available in 3/4-inch U-Matic, 1/2-inch Betamax, VHS videocassettes, and Super-8mm automatic cartridge system for Fairchild, MPO, Technicolor, and Kodak sound projectors.)

1. *Broiling.* Color, 16 mm, 10 minutes, National Education Media, Inc., 1979. Available from National Education Media, Inc., 15760 Ventura Boulevard , Encino, California 91436.
2. *Roasting.* See information above.
3. *Braising and Stewing.* See information above.
4. *Sauteing and Pan Frying.* See information above.

B. Make transparencies.

C. Provide students with objective sheet.

D. Provide students with information and job sheets.

E. Discuss unit and specific objectives.

F. Discuss information sheet.

G. Demonstrate and discuss procedures outlined in job sheets.

H. Develop appropriate learning activities for special needs students.

I. Arrange a field trip to a supermarket meat department. Discuss the primal and retail cuts of meat.

J. Arrange with a distributor to allow the class to taste different kinds of poultry.

K. Have students list vegetable protein meat substitutes they can find in a grocery store.

L. Ask each student to bring a cookbook from home. Divide the class into two groups and allow each group to see how many different moist and dry heat cooking methods they can find in a set amount of time. Have each group list the name of the recipe and the type of cooking method used.

SUGGESTED ACTIVITIES

M. Give test.

N. Reteach if necessary.

II. Instructional materials

A. Objective sheet

B. Suggested activities

C. Information sheet

D. Transparency masters

  1. TM #1--Primal Cuts of Beef
  2. TM #2--Primal Cuts of Pork
  3. TM #3--Primal and Retail Cuts of Beef
  4. TM #4--Federal Grading Stamp
  5. TM #5--Federal Inspection Stamps

E. Clinical job sheets

  1. Clinical Job Sheet #1--Prepare Beef Patties
  2. Clinical Job Sheet #2--Prepare Beef Stew
  3. Clinical Job Sheet #3--Prepare Pork Roast
  4. Clinical Job Sheet #4--Cut Up Whole Chicken
  5. Clinical Job Sheet #5--Prepare Deep Fat Fried Chicken
  6. Clinical Job Sheet #6--Prepare Turkey
  7. Clinical Job Sheet #7--Prepare Baked Fish Fillets

F. Test

G. Answers to test

III. Unit references

A. *Food Preparation Manual,* 6th ed. Oklahoma State University Department of Food, Nutrition, and Institution Administration. Dubuque, Iowa: Kendall/Hunt Publishing Co., 1977.

B. Grimes, Vici, and Jerald Chesser. *Food Service: Production and Service.* Stillwater, Oklahoma: State Department of Vocational and Technical Education/Curriculum and Instructional Materials Center, 1976.

SUGGESTED ACTIVITIES

C. Ketschevar, Lendal H. *Standards, Principles, and Techniques in Quantity Food Production,* 3rd ed. Boston: Cahners Books, 1974.

D. *Lessons on Meat,* 7th ed. Chicago, Illinois: National Live Stock and Meat Board, 1980.

E. Peckham, Gladys C., and Jeanne H. Freeland-Graves. *Foundations of Food Preparation,* 4th ed. New York: Macmillan Publishing Co., Inc., 1979.

F. West, B.B., et al. *Food for Fifty,* 6th ed. New York: John Wiley and Sons, Inc., 1979.

PROTEIN COOKERY II
UNIT V

INFORMATION SHEET

I. Terms and definitions

   A. Aging--Natural tenderizing and flavoring of meat

   B. Braise--To brown in small amount of fat and then cook slowly, covered in small amount of liquid

   C. Broil--To cook by radiant or direct heat

   D. Covering--Fat outside of muscle

   E. Extender--Cereal or vegetable product added to meat to extend flavor, texture, or quantity

   F. Fabricated meat--Meat that has been restructured to resemble another cut of meat

   G. Federal Grading Stamp--Stamp that designates quality of meat

   H. Federal Inspection Stamp--Stamp that designates meat fit for human consumption

   I. Marbling--Fat inside of muscle

   J. Marinade--Acidic mixture in which meat is soaked to enrich flavor and to tenderize

   K. Marinate--To soak in marinade

   L. Panbroil--To cook in hot frying pan or on grill, pouring off fat as it accumulates

   M. Preportioned meat--Meat servings of uniform size and weight

   N. Primal cut--Wholesale cut

   O. Retail cut--Cut ready for preparation

   P. Roast--To cook by dry heat, usually in an oven

   Q. Saute--To fry quickly in small amount of fat

   R. Season--To condition a cooking surface with fat

   S. Shrinkage--Loss of weight due to cooking

   T. Simmer--To cook in liquid with bubbles forming slowly and breaking at the surface

INFORMATION SHEET

U. Steam--To cook in steam with or without pressure

V. Stew--To simmer in small amount of liquid of thick consistency

W. Veal--Beef six months or younger

II. Primary uses of meat cooking methods

A. Dry heat--Used for tender cuts of meat, or young or large poultry

(NOTE: Younger and larger birds have a higher degree of fat; tender cuts of meat have more marbling and less connective tissue.)

EXAMPLES: Tenderloin, sirloin, ground meat, chops, roasters

B. Moist heat--Used for less tender cuts of meat, or older or smaller poultry

EXAMPLES: Stew meat, brisket, ribs, Rock Cornish hens

III. Dry heat and moist heat cooking methods

A. Dry heat

1. Roasting
2. Broiling

   (NOTE: The distance of the meat from the broiler depends on the thickness of the meat. Extra large pieces of meat may need to be turned twice.)

3. Panbroiling
4. Grilling
5. Sauteing

B. Moist heat

1. Steaming
2. Braising
3. Simmering
4. Stewing

IV. Primal cuts of beef and pork (Transparencies #1 and #2)

A. Beef

1. Chuck
2. Rib

INFORMATION SHEET

3. Short loin
4. Sirloin
5. Round
6. Flank
7. Short plate
8. Brisket
9. Foreshank

B. Pork

1. Ham
2. Loin
3. Side
4. Spareribs
5. Boston butt
6. Picnic
7. Jowl
8. Feet

V. Primal sources of retail cuts of beef (Transparency #3)

(NOTE: These are the most common retail cuts. Other retail cuts and primal sources can be seen on Transparency #3.)

A. Chuck

1. Arm pot roast or steak
2. Blade pot roast or steak
3. Boneless shoulder pot roast or steak
4. Beef for stew
5. Ground beef

B. Rib

1. Standing rib roast
2. Rib steak

INFORMATION SHEET

   3. Rib eye steak or roast

C. Short loin
   1. Club steak
   2. T-bone steak
   3. Tenderloin steak or roast

D. Sirloin
   1. Pin-bone sirloin steak
   2. Flat-bone sirloin steak
   3. Wedge-bone sirloin steak

E. Round
   1. Round steak
   2. Heel of round
   3. Rolled rump roast
   4. Eye of round

F. Flank
   1. Ground beef
   2. Flank steak

G. Short plate
   1. Short rib
   2. Beef for stew
   3. Ground beef

H. Brisket
   1. Fresh brisket
   2. Corned brisket

I. Foreshank
   1. Shank cross cuts
   2. Beef for stew

INFORMATION SHEET

VI. Federal Grading Stamp and Federal Inspection Stamp (Transparencies #4 and #5)

- A. Federal Grading Stamp
    - 1. Designates quality of meat
    - 2. Is United States Department of Agriculture (USDA) approved
    - 3. Has seven common grades
- B. Federal Inspection Stamp--Indicates that minimum federal standards have been met

  (NOTE: The purple dye of the stamps is harmless.)

VII. Federal grades of beef in order of desirability

(NOTE: The grades have been listed in order of desirability and tenderness and are correct as of July, 1982. Changes have been proposed, including different standards for prime and choice, and combination of cutter and canner grades.)

- A. U.S. Prime--Best available
- B. U.S. Choice--Most popular
- C. U.S. Good--Most economical
- D. U.S. Standard--Not used in commercial kitchens
- E. U.S. Commercial--Not used in commercial kitchens
- F. U.S. Utility--Not used in commercial kitchens
- G. U.S. Cutter--Used for canned meats
- H. U.S. Canner--Used for canned meats

VIII. Specifications for fabricated and preportioned meats

- A. Fabricated meats

  EXAMPLES: Mock fillet, chopped pork cutlet, chopped grilled steak

    - 1. Shaped to specifications

      EXAMPLES: Round, square, or T-bone shape

    - 2. Purchased by weight and thickness

INFORMATION SHEET

B. Preportioned meats

EXAMPLES: Hamburger patties, steaks, weiners, fish fillets

1. Cut to specific thickness
2. Cut to specific weight
3. Purchased by number of portions per pound

EXAMPLES: 2/1 is 2 per pound, 8 ounces each; 4/1 is 4 per pound, 4 ounces each

IX. Causes of meat shrinkage

A. High temperatures

B. Degree of doneness

(NOTE: Meat cooked well-done loses more moisture and nutritive value than meat cooked to the rare stage or medium stage.)

C. Cooking too quickly

(NOTE: For larger pieces of meat that require longer periods of cooking, the temperature must be reduced.)

X. Reasons for avoiding meat shrinkage

A. Loss of moisture

B. Loss of weight

EXAMPLES: Looks smaller to patient; looks unappetizing to patient

C. Increase in cost per portion

EXAMPLES: Beef purchased = 100 lb
Cost of beef per pound = $1.50
Total cost of beef = $150.00
Cost of 4-ounce as-purchased portion = $.375

25% shrinkage--Average and acceptable
Beef purchased = 100 lb
Cooked beef with 25% shrinkage = 75 lb
Total cost of beef purchased = $150.00
Cost of beef per pound before shrinkage = $1.50
Cost of beef per pound after shrinkage = $2.00
Cost of cooking beef = $.50 per pound
Cost of 4-ounce portion = $.500

INFORMATION SHEET

40% shrinkage--Higher temperature and longer cooking time
Beef purchased = 100 lb
Cooked beef with 40% shrinkage = 60 lb
Total cost of beef purchased = $150.00
Cost of beef per pound before shrinkage = $1.50
Cost of beef per pound after shrinkage = $2.50
Cost of cooking beef = $1.00 per pound
Cost of 4-ounce portion = $.625

XI. Common meat tenderizing methods

A. Mechanical method

EXAMPLES: Grinding, pounding, running through tenderizer machine

B. Chemical method

EXAMPLES: Marinade, commercial powders

(NOTE: These commercial powders contain enzymes that break down the connective tissues. However, it is difficult to apply them uniformly and they act only on the outer portion of the meat. It is also believed that they cause a loss of flavor and juiciness.)

C. Cookery method

EXAMPLE: Slow, low-temperature cooking

D. Cutting method

EXAMPLE: Slicing across grain

XII. Guidelines for beef cookery (Clinical Job Sheets #1 and #2)

A. Use low to moderate temperature when possible

B. Do not overcook

C. Use discretion when salting meat

(NOTE: Salt draws moisture out of the meat.)

D. Use a meat thermometer

(NOTE: Place thermometer in the largest muscle, making sure that it does not touch a bone. Bones conduct heat and help cook the meat.)

INFORMATION SHEET

XIII. Moist heat and dry heat cooking methods for retail cuts of beef (Transparency #3)

(NOTE: These are the most common retail cuts. For other retail cuts and specific cooking methods, refer to Transparency #3.)

A. Retail cuts recommended for moist heat cooking

(NOTE: Retail cuts from the chuck, round, flank, short plate, brisket, and foreshank are best if prepared by a moist heat cooking method.)

1. Blade pot roast or steak
2. Arm pot roast or steak
3. Beef for stew
4. Ground beef
5. Round steak
6. Heel of round
7. Flank steak
8. Short ribs
9. Fresh and corned brisket
10. Shank cross cuts

B. Retail cuts recommended for dry heat cooking

(NOTE: Retail cuts from the rib, short loin, and sirloin are best if prepared by a dry heat cooking method.)

1. Standing rib roast
2. Rib steak
3. Club steak
4. T-bone steak
5. Tenderloin steak
6. Pin-, flat-, or wedge-bone sirloin steak

XIV. Characteristics of various degrees of doneness for beef steaks and roasts

Degree of Doneness	Steaks	Roasts
Rare	Bright pink	140°F internal temperature
Medium	Pink brown	160°F internal temperature
Well-done	Light brown	175°F internal temperature

INFORMATION SHEET

XV. Preparation and cooking techniques that produce a quality pork product (Clinical Job Sheet #3)

- A. Slash fat edges to prevent curling
- B. Avoid using excess fat in cooking
- C. Use dry heat cooking method if possible

XVI. Characteristics of well-done pork

(CAUTION: Pork should always be cooked well-done. Cooking until well-done kills the trichinae that may be found in pork.)

(NOTE: Microwave and other rapid cooking methods are not recommended because of uneven heating. The "cold spots" may harbor trichinae.)

- A. Grayish-white in color
- B. Internal temperature of 170°F

  (NOTE: Exceptions to these characteristics are smoked and cured pork.)

XVII. Common types of poultry

- A. Chicken
- B. Turkey
- C. Goose
- D. Game birds

  EXAMPLES: Duck, pheasant, quail

INFORMATION SHEET

XVIII. Age and size descriptions of common classes of chicken and turkey

POULTRY CLASS	AGE	SIZE
Chicken Broiler	Approximately nine weeks	Usually 2 1/2 pounds; not over 2 3/4 pounds
Fryer	Ten to fourteen weeks	2 to 3 pounds
Roaster	About six months	3 1/2 pounds average
Fowl EXAMPLES: Stewing chicken, fat hen	Over one year	3 pounds or over
Turkey Fryer	Young	4 to 8 pounds
Roaster	Young	8 to 16 pounds
Hen	Fully grown female	18 to over 24 pounds (NOTE: Hens usually have more breast meat than toms.)
Tom	Fully grown male	Usually 20 to 25 pounds

XIX. Poultry selection

A. Select older or smaller birds for cooking with moist heat

B. Select younger birds for cooking with dry heat

C. Allow 3/4 to 1 pound of ready-to-cook poultry per serving

D. Choose poultry suitable for the intended use

EXAMPLE: A cut or tear in the skin is not important if you intend to skin the poultry.

(NOTE: Grading of poultry by processor is optional and may be used only on inspected poultry. The color of poultry is not an indicator of quality. It is related to the pigments in poultry feed.)

INFORMATION SHEET

XX. Guidelines for poultry cookery (Clinical Job Sheets #4-#6)

A. Use a thermometer to determine when poultry has reached desired stage of doneness

(NOTE: Insert the thermometer in the thigh or breast muscle. A temperature of 185°F indicates that the bird has been sufficiently cooked.)

B. Stuff poultry *just* prior to roasting

(CAUTION: Stuffing is an excellent medium for the growth of bacteria. Allow room in the cavity for expansion of the dressing and even cooking. Insert the thermometer in the stuffing and allow it to reach an internal temperature of 165° F. Serve immediately.)

C. Cook poultry breast-side down for juicier, more tender breast meat

D. Add fat to game birds

(NOTE: Game birds are naturally lacking in fat.)

EXAMPLE: Baste pheasant and quail with butter at least four times during roasting.

XXI. Guidelines for purchasing fish

A. Consider the form of fish to be used

EXAMPLES: Fresh, frozen, canned, cured, dried, smoked, pickled

B. Be prepared to use fresh fish immediately after purchase, as it deteriorates rapidly

C. Choose fish suitable for intended cooking method

(NOTE: Lean fish such as perch, cod, haddock, halibut; and shellfish such as clams, shrimp, lobster, oysters, and crabs may be panfried or deep fried. Fish such as tuna, mackerel, and salmon have oil or fat throughout the flesh and require less fat in preparation.)

D. Choose fresh fish without a "fishy" odor

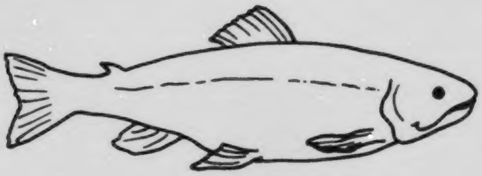
(NOTE: A fishy odor means that deterioration has begun.)

INFORMATION SHEET

XXII. Market forms of fish

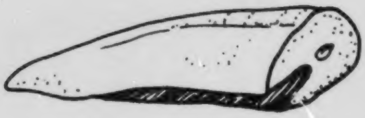
A. Whole fish (Figure 1)

FIGURE 1



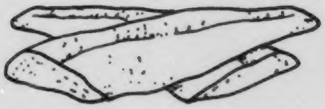
B. Dressed fish (Figure 2)

FIGURE 2



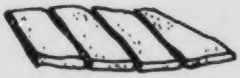
C. Fish fillets (Figure 3)

FIGURE 3



D. Fish sticks (Figure 4)

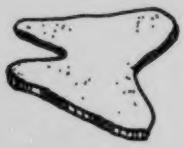
FIGURE 4



INFORMATION SHEET

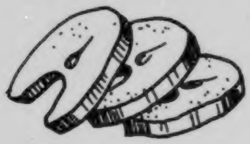
E. Butterfly fillet (Figure 5)

FIGURE 5



F. Fish steaks (Figure 6)

FIGURE 6



XXIII. Guidelines for fish cookery (Clinical Job Sheet #7)

A. Avoid overcooking

(NOTE: Fish has little connective tissue and requires a much shorter cooking time than other meats.)

B. Use moderate heat

C. Simmer water (do not boil) when cooking shellfish

(NOTE: Boiling water makes shellfish less tender and juicy.)

D. Coat fried fish

EXAMPLES: Batter, breading

E. Do not depend on fish meat to change color as a test of doneness

(NOTE: When fish is done it falls apart in flaky chunks.)

XXIV. Advantages and disadvantages of vegetable proteins as meat substitutes

A. Advantages

1. Generally more economical than animal-origin protein

(NOTE: Economy is due to the increased cost of production for animal protein.)

2. Good source of protein for vegetarians and people of certain religious beliefs

INFORMATION SHEET

B. Disadvantages

1. Lack one or more of the essential amino acids that must be supplied from animal sources or other vegetable proteins
2. Texture and flavor may not be as desirable as that of animal-origin protein

XXV. Vegetable protein meat substitutes

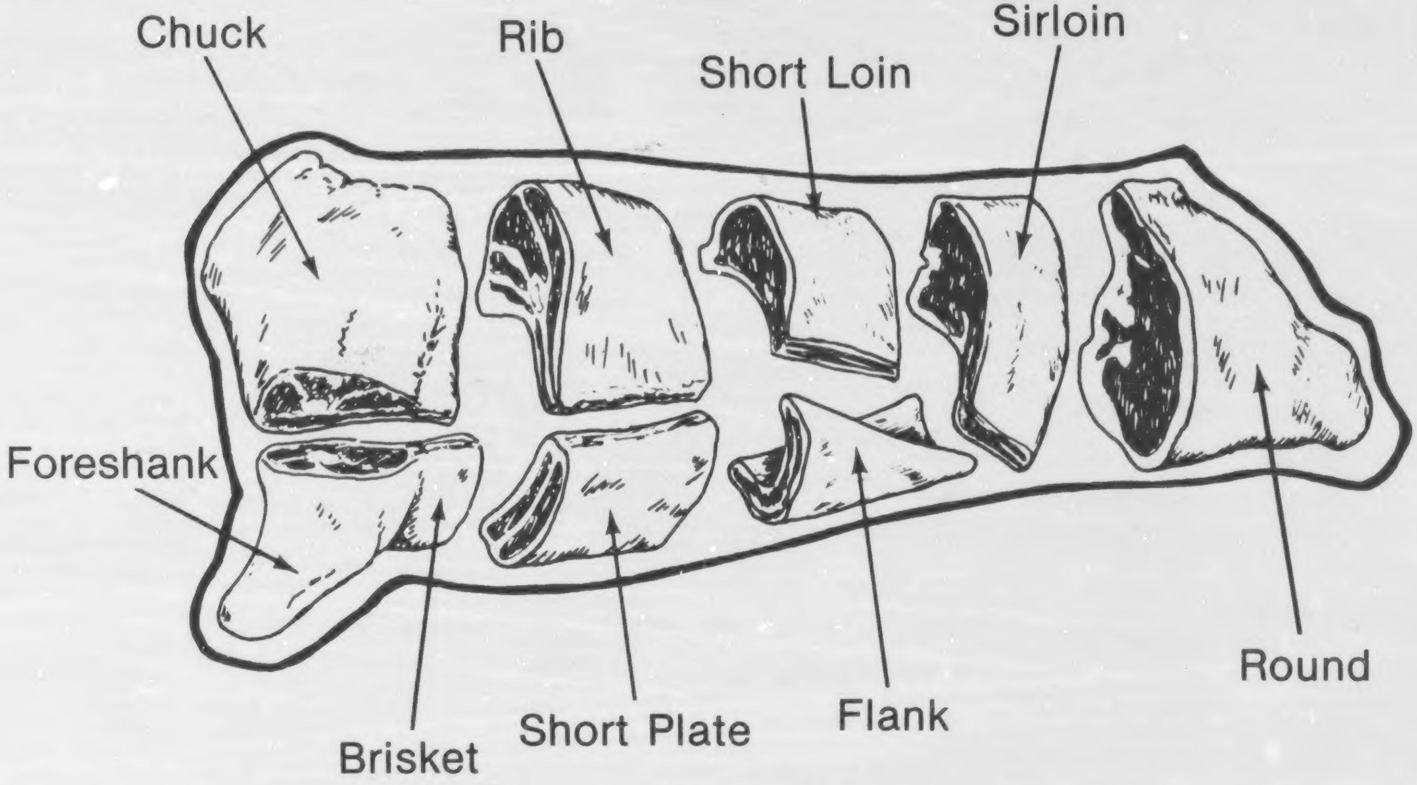
A. Texturized vegetable protein

EXAMPLE: Texturized vegetable protein is often mixed in with ground meat dishes.

B. Meat and seafood analogs

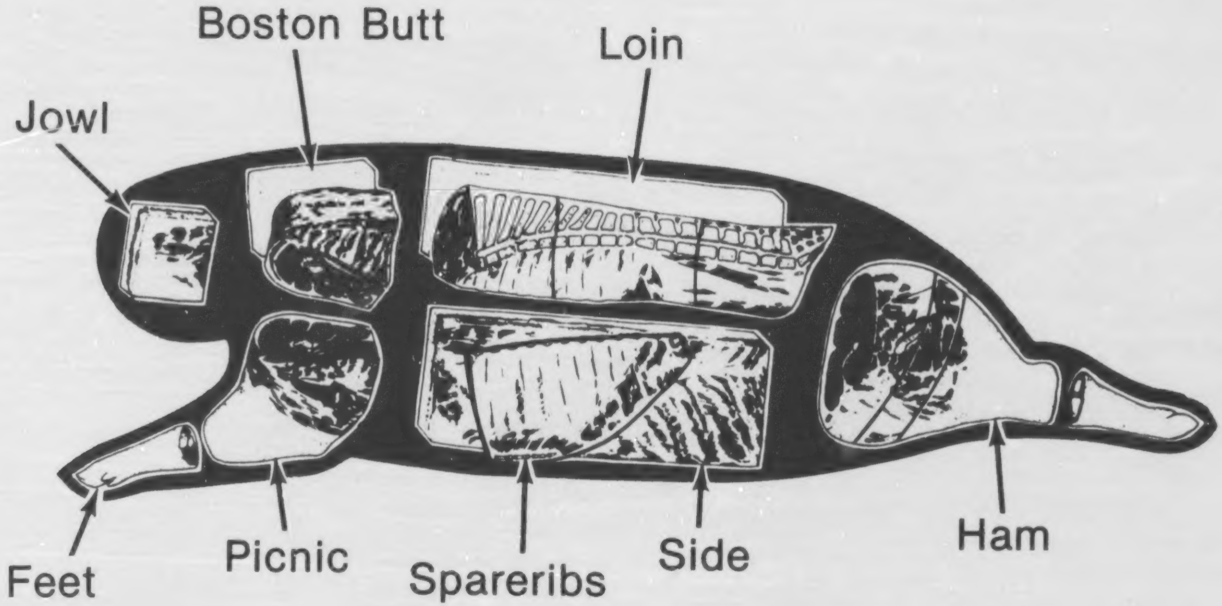
EXAMPLE: Vegetable proteins fabricated to look and taste like meat and seafood, such as breakfast patties (sausage) or breakfast strips (bacon)

Primal Cuts of Beef


Chuck
Rib
Short Loin
Sirloin
Foreshank
Round
Brisket
Short Plate
Flank

5

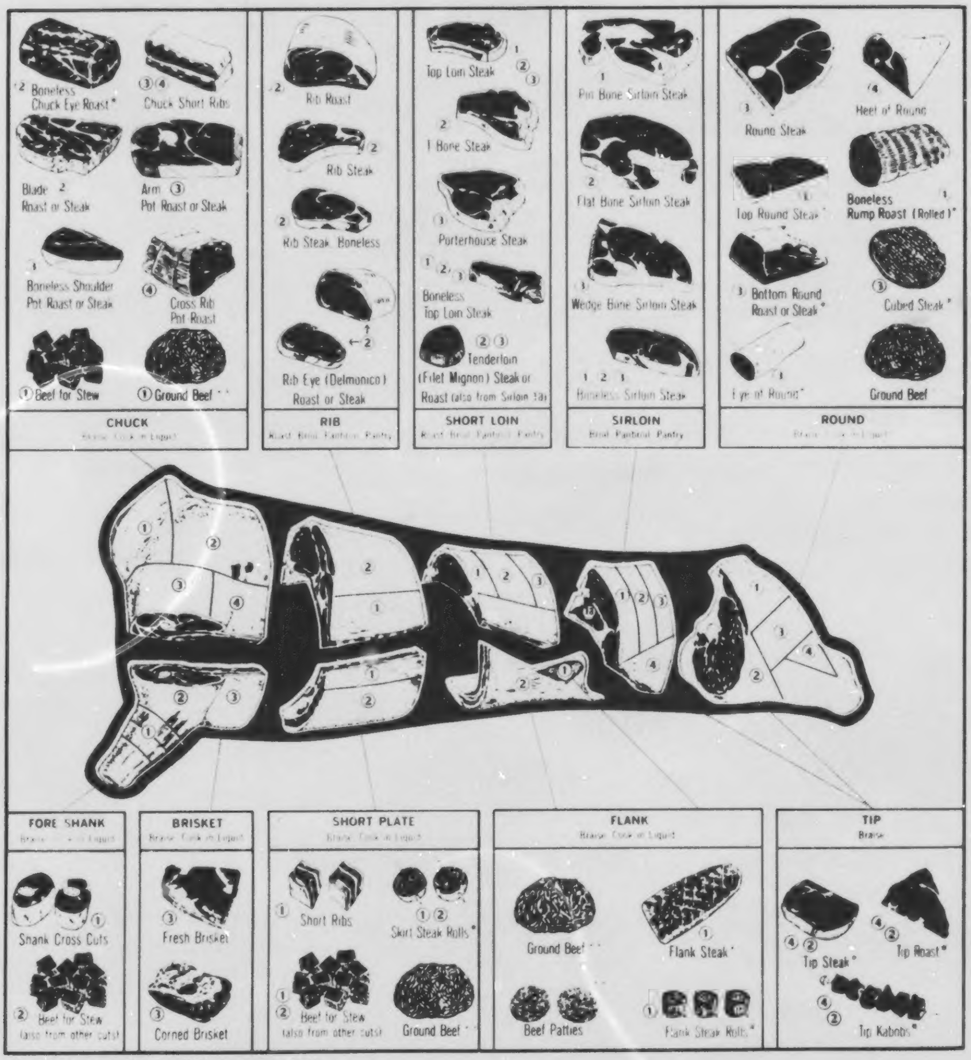
Primal Cuts of Pork


Boston Butt
Loin
Jowl
Feet
Picnic
Spareribs
Side
Ham

TM #2

FPW - 285-C

Primal and Retail Cuts of Beef

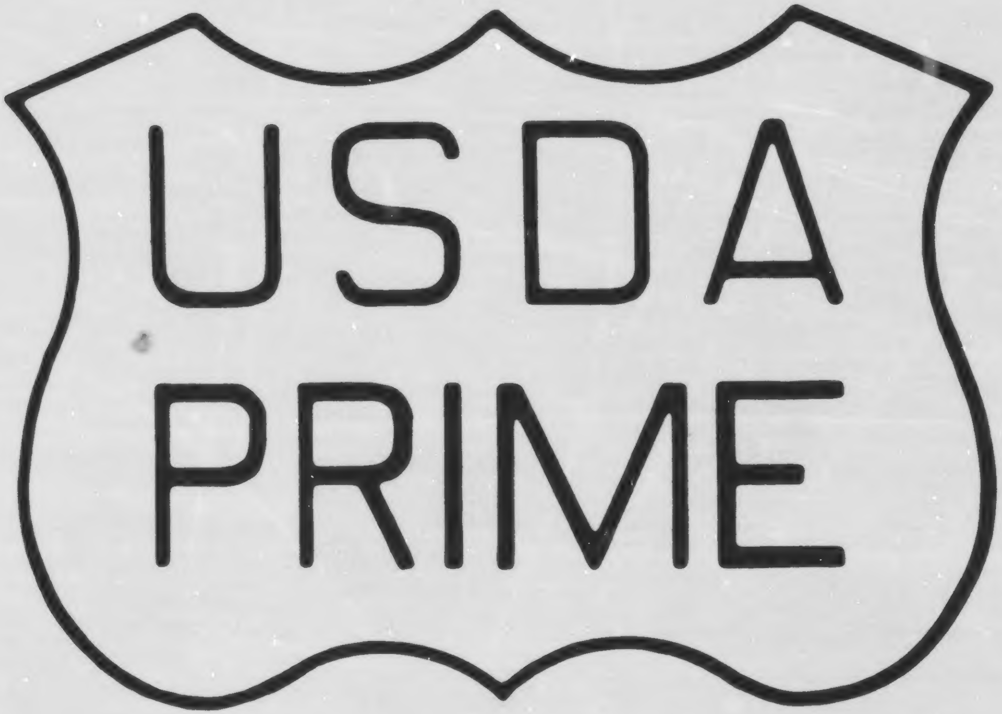


Boneless Chuck Eye Roast*
Chuck Short Ribs
Blade Roast or Steak
Arm Pot Roast or Steak
Boneless Shoulder Pot Roast or Steak
Cross Rib Pot Roast
Beef for Stew
Ground Beef**
CHUCK
Braise, Cook in Liquid
Rib Roast
Rib Steak
Rib Steak, Boneless
Rib Eye (Delmonico) Roast or Steak
RIB
Roast, Broil, Panbroil, Panfry
Top Loin Steak
T-Bone Steak
Porterhouse Steak
Boneless Top Loin Steak
Tenderloin (Filet Mignon) Steak or Roast (also from Sirloin 1a)
SHORT LOIN
Roast, Broil, Panbroil, Panfry
Pin Bone Sirloin Steak
Flat Bone Sirloin Steak
Wedge Bone Sirloin Steak
Boneless Sirloin Steak
SIRLOIN
Broil, Panbroil, Panfry
Round Steak
Heel of Round
Top Round Steak*
Boneless Rump Roast (Rolled)*
Bottom Round Roast or Steak*
Cubed Steak*
Eye of Round*
Ground Beef
ROUND
Braise, Cook in Liquid
FORE SHANK
Braise, Cook in Liquid
Shank Cross Cuts
Beef for Stew (also from other cuts)
BRISKET
Braise, Cook in Liquid
Fresh Brisket
Corned Brisket
SHORT PLATE
Braise, Cook in Liquid
Short Ribs
Skirt Steak Rolls*
Beef for Stew (also from other cuts)
Ground Beef**
FLANK
Braise, Cook in Liquid
Ground Beef**
Flank Steak*
Beef Patties
Flank Steak Rolls*
TIP
Braise
Tip Steak*
Tip Roast*
Tip Kabobs*

May be Roasted, Broiled, Panbroiled or Panfried from high quality beef.

May be Roasted (Baked), Broiled, Panbroiled or Panfried.

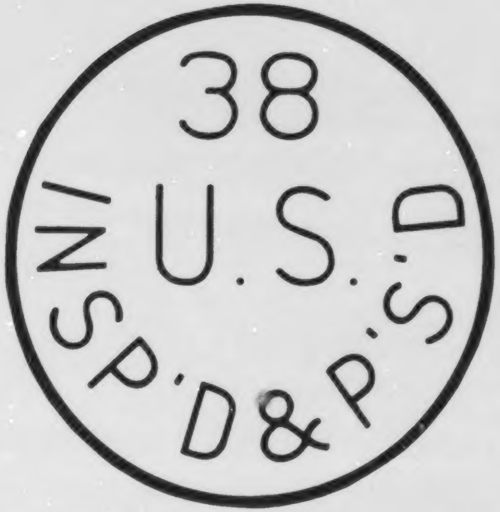
Federal Grading Stamp

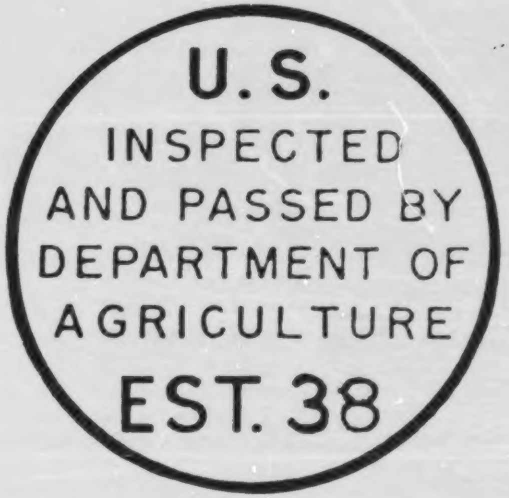


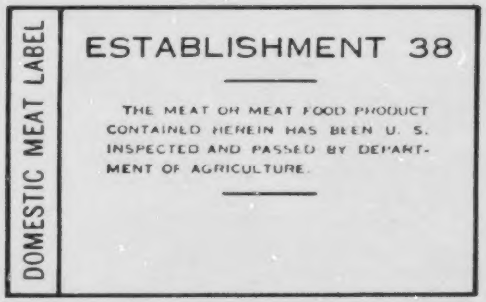
TM #4

FPW - 289-C

Federal Inspection Stamps


38
U.S.
INSP'D & P'S'D


U.S.
INSPECTED
AND PASSED BY
DEPARTMENT OF
AGRICULTURE
EST. 38



DOMESTIC MEAT LABEL

ESTABLISHMENT 38

THE MEAT OR MEAT FOOD PRODUCT CONTAINED HEREIN HAS BEEN U. S. INSPECTED AND PASSED BY DEPARTMENT OF AGRICULTURE.

TM #5

430

431

FPW - 291-C

PROTEIN COOKERY II
UNIT V

CLINICAL JOB SHEET #1--PREPARE BEEF PATTIES

I. Equipment

  A. Tongs

  B. Scales

  C. Broiler

  D. Three plates

II. Ingredients

  A. Three beef patties, 4-ounces each, 1 inch thick by 3 inches in diameter

  (NOTE: For evaluation purposes, it is important that the patties weigh the same.)

  B. Salt

  C. Pepper

  (NOTE: Seasonings are added only for taste. Meat should be seasoned after evaluation is completed.)

III. Procedure

  A. Place broiler rack approximately 4 inches from heat

  B. Turn oven regulator to broil

  C. Place beef patty #1 on broiler

  D. Broil five minutes

  E. Place beef patty #2 on broiler

  F. Broil both beef patties five more minutes

  G. Place beef patty #3 on broiler

  H. Broil all three beef patties for five more minutes

  I. Turn all three beef patties with tongs

  J. Broil all three beef patties for ten more minutes

  K. Remove patties from broiler

CLINICAL JOB SHEET #1

L. Place each beef patty on a separate plate

M. Turn off broiler

N. Label beef patties as #1, #2, and #3

O. Reweigh each beef patty

P. Evaluate beef patties, using evaluation sheets in Part IV

Q. Return equipment and supplies to their proper places and clean work area

CLINICAL JOB SHEET #1

IV. Product evaluation

Product: Beef Patty #1

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring--____
2. Temperature of cookery--______________________________
3. Preparation--______________________________________

Circle the description that reflects your rating of the portion size.

Too large Adequate Too small

Comments:____

Weight after cooking--___________________________________

CLINICAL JOB SHEET #1

Product: Beef Patty #2

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring--____________________
2. Temperature of cookery--____________________
3. Preparation--____________________

Circle the description that reflects your rating of the portion size.

Too large   Adequate   Too small

Comments:____________________

Weight after cooking--____________________

CLINICAL JOB SHEET #1

Product: Beef Patty #3

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring--______________________________
2. Temperature of cookery--______________________________
3. Preparation--______________________________

Circle the description that reflects your rating of the portion size.

Too large Adequate Too small

Comments:______________________________

Weight after cooking--______________________________

PROTEIN COOKERY II
UNIT V

CLINICAL JOB SHEET #2--PREPARE BEEF STEW

I. Equipment

- A. Ten-quart steam-jacketed kettle
- B. Two cutting boards
- C. Utility knife
- D. French knife
- E. Perforated pan
- F. Potato peeler
- G. Water
- H. Damp cloth
- I. Small container, at least 2-cup capacity
- J. Dry measuring cups
- K. Four-quart liquid measure
- L. Scales
- M. Fork
- N. Two half-size steam table pans, 6 inches deep

II. Ingredients

(NOTE: These ingredients will yield fifty 6-ounce portions.)

- A. Water, 3 qt + 1 1/4 c
- B. Beef tips, 12 lb 8 oz
- C. Potatoes, 2 lb or 6 medium
- D. Carrots, 2 lb or 8 medium
- E. Onion, 1 lb or 4 medium
- F. Celery, 1 lb 8 oz or 1 to 1 1/2 bunches
- G. Salt, 10 1/2 oz or 1/2 c
- H. Pepper, 2 t

CLINICAL JOB SHEET #2

III. Procedure

A. Use utility knife to cut beef into 1-inch cubes on cutting board

B. Brown beef in steam-jacketed kettle

C. Add 3 quarts water, 1/4 cup salt, and 1 teaspoon pepper to meat

D. Cover and simmer for two hours

E. Wash and peel potatoes

F. Wash and clean carrots, onion, and celery

G. Use French knife to cube potatoes, slice carrots, cube onion, and dice celery on second cutting board

H. Cook vegetables in steamer in perforated pan until tender

I. With fork, mix flour, 1/4 cup salt, 1 teaspoon pepper, and remaining 1 1/4 cup water in small container until smooth

J. Add flour mixture to meat

K. Cook until thickened

L. Add vegetables

M. Pour into steam table pans

N. Clean work area and return equipment and supplies to their proper places

CLINICAL JOB SHEET #2

IV. Product evaluation

Product: Beef Stew						
Check the box that describes your rating of the product.						
	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring--______________________________

2. Temperature of cookery--________________________

3. Preparation--______________________________

Circle the description that reflects your rating of the portion size.

Too large Adequate Too small

Comments: ______________________________

PROTEIN COOKERY II
UNIT V

CLINICAL JOB SHEET #3--PREPARE PORK ROAST

I. Equipment

- A. Roasting pan
- B. Oven
- C. Meat thermometer

II. Ingredients

- A. Boneless, 6-pound pork roast
- B. Salt and pepper

  (NOTE: These ingredients will yield approximately twenty-five servings of 3 ounces each.)

III. Procedure

- A. Season roast with salt and pepper

  (NOTE: Fat may be scored to improve appearance.)

- B. Place roast on rack in roasting pan
- C. Place thermometer in largest muscle of the roast
- D. Put in oven
- E. Roast pork at 325°F for 3 1/2 to 4 hours
- F. Pork should reach an internal temperature of 170°F
- G. Allow pork to cool about one-half hour before slicing
- H. Return all equipment and supplies to their proper places and clean work area

CLINICAL JOB SHEET #3

IV. Product evaluation

Product: Pork Roast

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring--____
2. Temperature of cookery--____
3. Preparation--____

Circle the description that reflects your rating of the portion size.

Too large Adequate Too small

Comments:____

PROTEIN COOKERY II
UNIT V

CLINICAL JOB SHEET #4--CUT UP WHOLE CHICKEN

I. Equipment

   A. Strong, sharp knife

   B. Cutting board

II. Ingredients--Whole chicken

III. Procedure

   (NOTE: There are many ways to cut up a chicken. The following is one variation.)

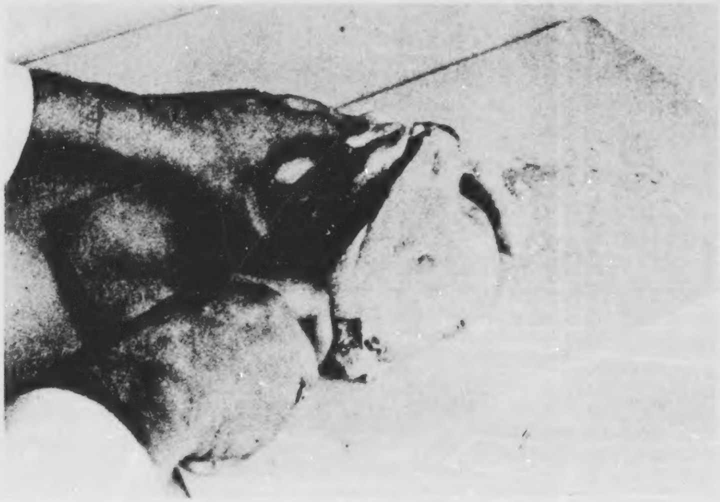
   A. Remove giblets if there are any

   B. Wash chicken thoroughly

   C. Split chicken in half

      1. Cut through flesh over backbone (Figure 7)

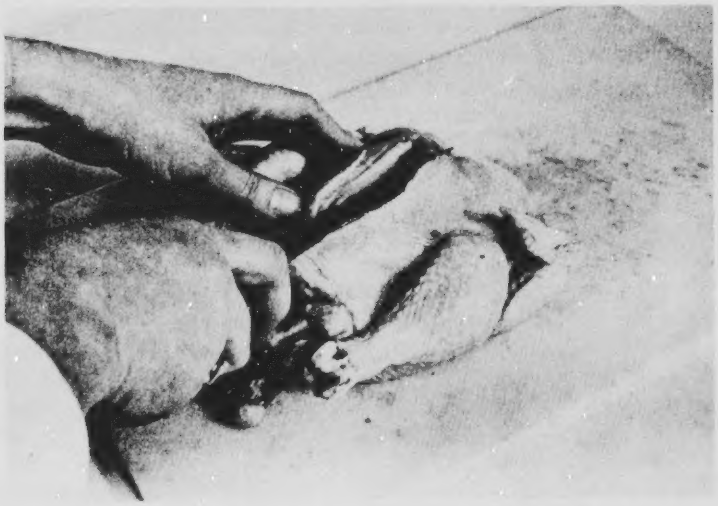
FIGURE 7



CLINICAL JOB SHEET #4

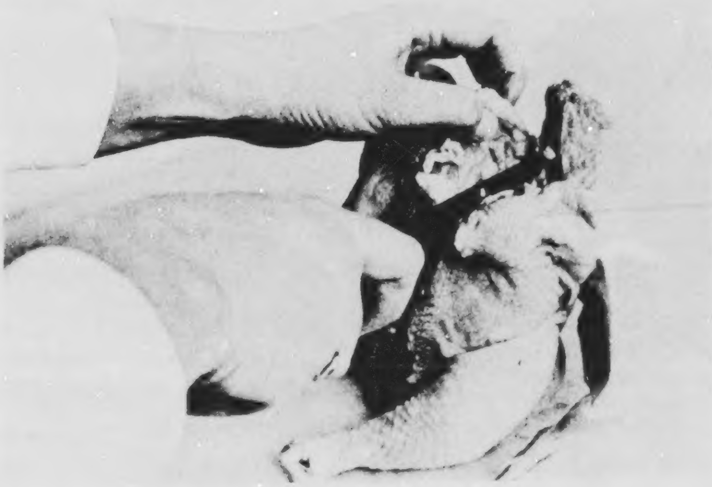
2. Cut through flesh over breastbone (Figure 8)

FIGURE 8



3. Cut through flesh between backbone and breastbone (Figure 9)

FIGURE 9



CLINICAL JOB SHEET #4

D. Cut lengthwise through breastbone and backbone

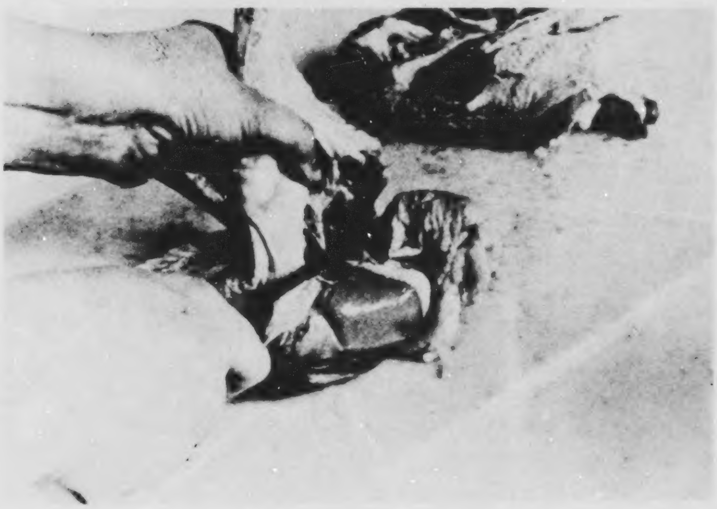
E. Break backbone

F. Snap cartilage

G. Cut through flesh at joints

   1. Thigh and leg (Figure 10)

FIGURE 10

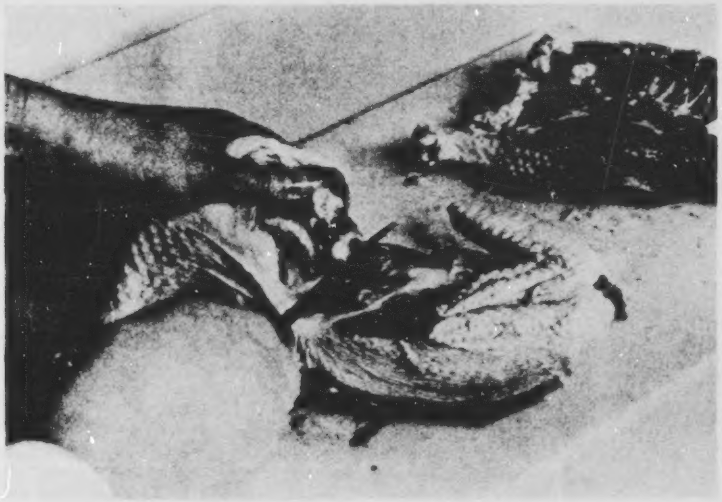


   2. Wing

CLINICAL JOB SHEET #4

H. Wiggle joint to get knife between bones (Figure 11)

FIGURE 11



I. Return all equipment and supplies to their proper places and clean work area

PROTEIN COOKERY II
UNIT V

CLINCIAL JOB SHEET #5--PREPARE DEEP FAT FRIED CHICKEN

I. Equipment

A. Twelve-inch tongs

B. Skimmer

C. Four full-length steam table pans, 4 inches deep

(NOTE: Two of these will be used for serving pans.)

D. Scales or measuring cups

E. Gallon measure

F. Deep fat fryer with oil

G. Two half-size steam table pans, 4 inches deep

H. One long, perforated screen

II. Ingredients

(NOTE: These ingredients will yield fifty-two portions at two pieces per serving.)

A. Chickens, 13 quartered

B. Flour, 2 lb or 8 c

C. Milk, 1 qt

D. Salt, 1 oz or 1 1/2 T

E. Pepper, 1/2 oz or 2 T

F. Oil enough to fill fryer to capacity level

III. Procedure

A. Preheat fryer to 325°F

B. Clean poultry

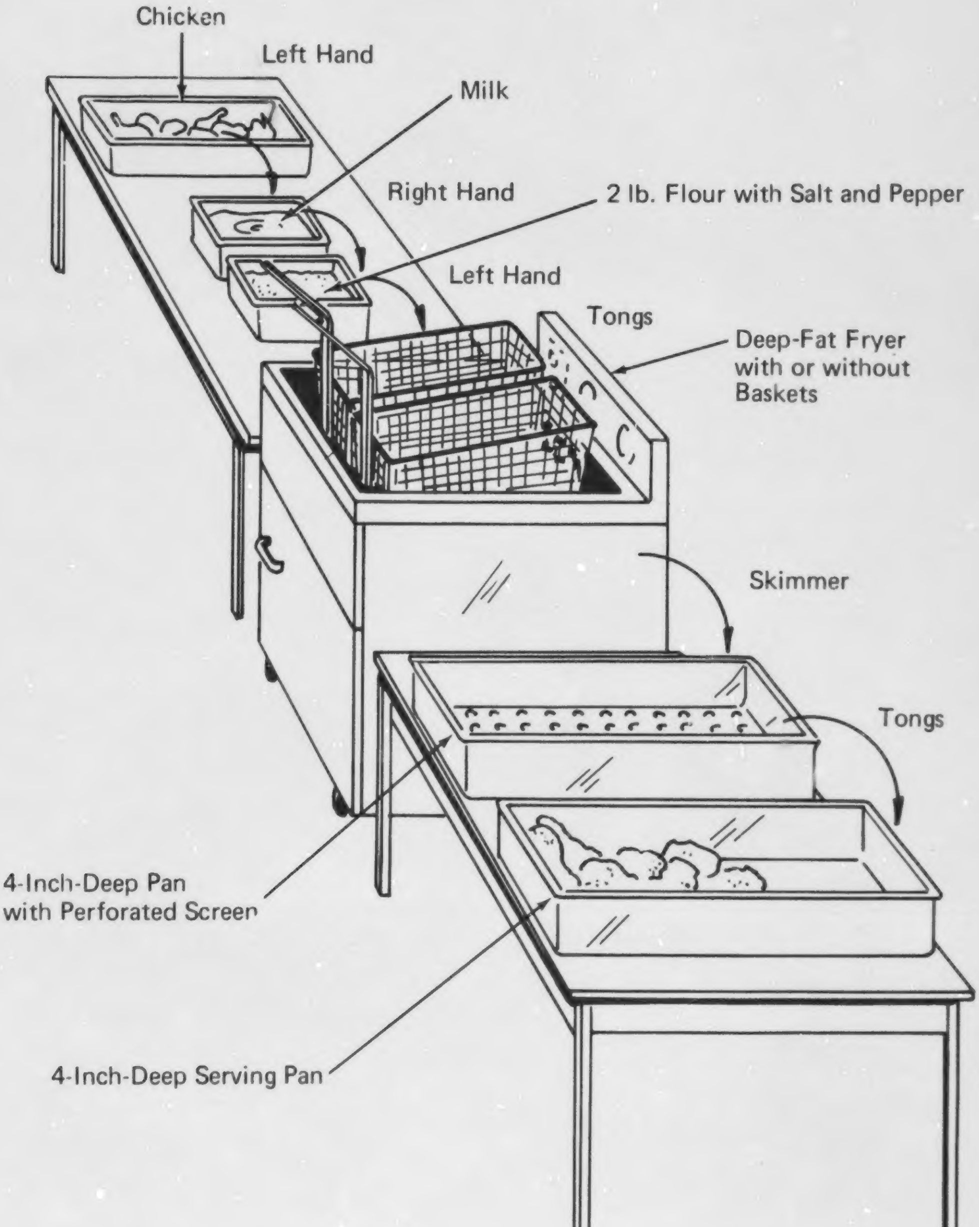
C. Follow diagram on next page for preparation of poultry (Figure 12)

(NOTE: This is a work station set up for deep fat frying and can be reversed if needed.)

CLINICAL JOB SHEET #5

D. Return all equipment and supplies to their proper places and clean work area (Figure 12)

FIGURE 12


Chicken
Left Hand
Milk
Right Hand
2 lb. Flour with Salt and Pepper
Left Hand
Tongs
Deep-Fat Fryer with or without Baskets
Skimmer
Tongs
4-Inch-Deep Pan with Perforated Screen
4-Inch-Deep Serving Pan

CLINICAL JOB SHEET #5

IV. Product evaluation

Product: Deep Fat Fried Chicken

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring--______________________________

2. Temperature of cookery--______________________________

3. Preparation--______________________________

Circle the description that reflects your rating of the portion size.

Too large Adequate Too small

Comments:______________________________

PROTEIN COOKERY II
UNIT V

CLINICAL JOB SHEET #6--PREPARE TURKEY

I. Equipment

   A. Roasting pan

   B. Two kitchen forks

   C. Kitchen spoon

   D. One-gallon stainless steel container

   E. China cap

   F. Meat thermometer

   G. Cold water

   H. Oven

   I. Full-length steam table pan, 4 inches deep

II. Ingredients

(NOTE: These ingredients will yield approximately fifty 3-ounce portions of cooked turkey.)

   A. Turkey, 25 lb

   B. Margarine, 10 oz or 1 1/4 c

   C. Salt and pepper to taste

III. Procedure

   A. Preheat oven to 375°F

   B. Remove giblets if there are any

   C. Wash turkey thoroughly with cold water

   D. Lock turkey wings by bending under body

   E. Season with salt and pepper

   F. Rub margarine over surface of turkey

   G. Place in roasting pan with breast down

   H. Place in oven

CLINICAL JOB SHEET #6

I. Brown surface of turkey
    1. Turn from side to side
    2. Turn to original position after all sides are browned

J. Place meat thermometer in thigh or breast

K. Baste frequently

L. Roast to an internal temperature of 185°F

M. Remove pan from oven

N. Place turkey in clean pan by lifting with kitchen forks

O. Strain drippings through a china cap into a stainless steel container for future use

P. Return equipment and supplies to their proper places and clean work area

CLINICAL JOB SHEET #6

IV. Product evaluation

Product: Turkey

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring--______________________________

2. Temperature of cookery--______________________________

3. Preparation--______________________________

Circle the description that reflects your rating of the portion size.

Too large Adequate Too small

Comments: ______________________________

PROTEIN COOKERY II
UNIT V

CLINICAL JOB SHEET #7--PREPARE BAKED FISH FILLETS

I. Equipment

  A. Cutting board

  B. Knife

  C. Scales or measuring cups

  D. Spoon

  E. Bowl for mixing

  F. Pastry brush

  G. Spatula

  H. Sheet pan

II. Ingredients

  (NOTE: These ingredients will yield fifty 3-ounce portions.)

  A. Fish fillets, 10 lb

  B. Margarine or butter, melted, 3/4 lb

  C. Lemon juice, 6 oz or 3/4 c

  D. Salt, 1 oz or 1 1/2 T

  E. Paprika, 1/2 oz or 2 T

  F. Oil enough to grease sheet pan

III. Procedure

  A. Preheat oven to 325°F

  B. Cut fish in 3-ounce portions

  C. Oil sheet pan

  D. Place fish on oiled sheet pan

  E. Combine margarine or butter, lemon juice, salt, and paprika

  F. Mix well

CLINICAL JOB SHEET #7

G. Cover fish with seasoned butter

H. Bake for twenty-five to thirty minutes or until fish flakes when tested with a fork

(NOTE: Fish does not change color when it is cooked.)

I. Return all equipment and supplies to their proper places and clean work area

CLINICAL JOB SHEET #7

IV. Product evaluation

Product: Baked Fish Fillets						
Check the box that describes your rating of the product.						
	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring--____________________
2. Temperature of cookery--____________________
3. Preparation--____________________

Circle the description that reflects your rating of the portion size.

Too large Adequate Too small

Comments:____________________

PROTEIN COOKERY II
UNIT V

TEST

NAME ______________________ SCORE ____________

1. Match terms associated with meat, fish, and poultry cookery to their correct definitions. Write the correct numbers in the blanks.

_____ a. To simmer in small amount of liquid of thick consistency

_____ b. Cereal or vegetable product added to meat to extend flavor, texture, or quantity

_____ c. Loss of weight due to cooking

_____ d. To condition a cooking surface with fat

_____ e. Meat that has been restructured to resemble another cut of meat

_____ f. Fat outside of muscle

_____ g. Stamp that designates quality of meat

_____ h. Stamp that designates meat fit for human consumption

_____ i. Natural tenderizing and flavoring of meat

_____ j. Acidic mixture in which meat is soaked to enrich flavor and to tenderize

_____ k. To fry quickly in small amount of fat

_____ l. To soak in marinade

_____ m. Meat servings of uniform size and weight

_____ n. Beef six months or younger

_____ o. Fat inside of muscle

_____ p. Wholesale cut

_____ q. Cut ready for preparation

_____ r. To cook by radiant or direct heat

1. Extender
2. Season
3. Marinade
4. Federal Inspection Stamp
5. Broil
6. Fabricated meat
7. Veal
8. Marinate
9. Primal cut
10. Federal Grading Stamp
11. Saute
12. Retail cut
13. Stew
14. Shrinkage
15. Preportioned meat
16. Marbling
17. Covering
18. Aging

TEST

_____s. To cook in hot frying pan or on grill, pouring off fat as it accumulates

_____t. To brown in small amount of fat and then cook slowly, covered in small amount of liquid

_____u. To cook in liquid with bubbles forming slowly and breaking at the surface

_____v. To cook in steam with or without pressure

_____w. To cook by dry heat, usually in an oven

19. Panbroil
20. Roast
21. Steam
22. Braise
23. Simmer

2. Describe the primary uses of meat cooking methods.

   a. Dry heat--____

   ____

   b. Moist heat--____

   ____

3. Distinguish between dry heat and moist heat cooking methods. Write a "D" before dry heat cooking methods, and an "M" before moist heat cooking methods.

_____a. Stewing

_____b. Panbroiling

_____c. Roasting

_____d. Steaming

_____e. Grilling

_____f. Braising

_____g. Simmering

_____h. Broiling

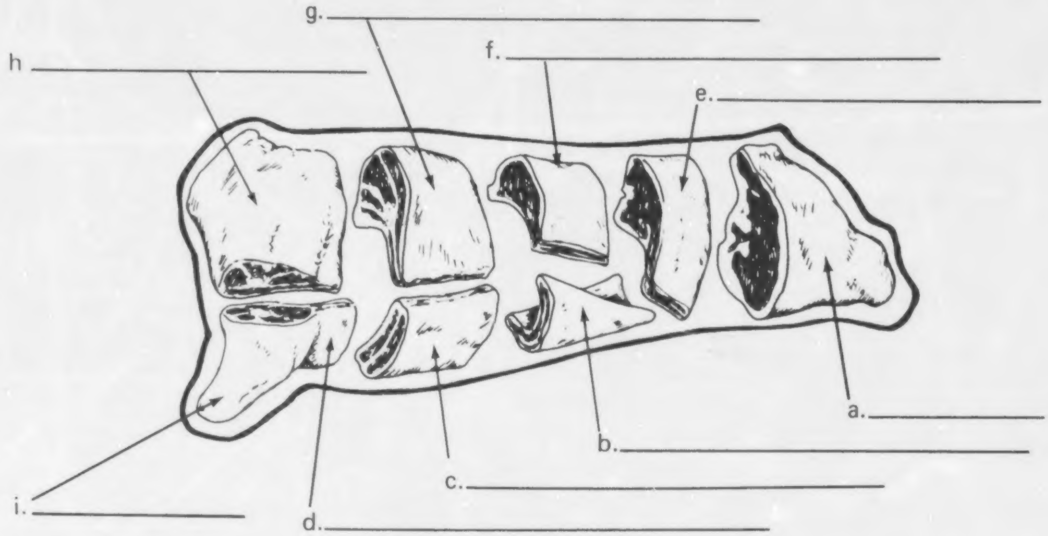
_____i. Sauteing

TEST

4. Identify primal cuts of beef and pork. Write the correct names in the blanks.

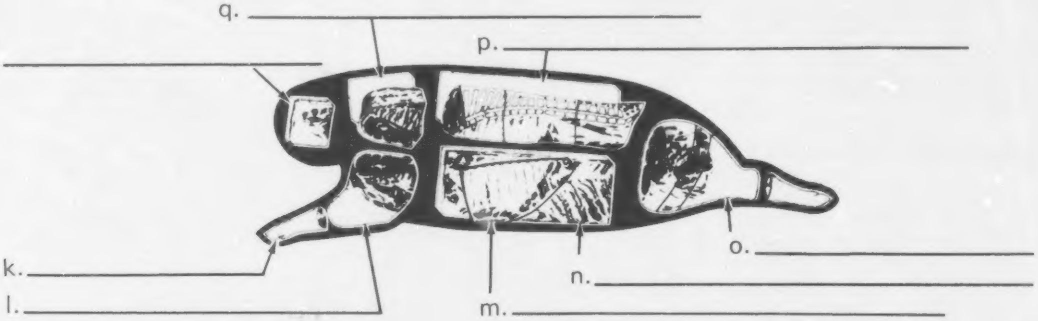
BEEF

Round
Chuck
Sirloin
Short loin
Flank
Foreshank
Short plate
Brisket
Rib



PORK

Ham
Boston butt
Jowl
Picnic
Side
Loin
Spareribs
Feet



TEST

5. Match primal sources to retail cuts of beef. Write the correct numbers in the blanks.

_____a. Fresh brisket; corned brisket

_____b. Round steak; heel of round; rolled rump roast; eye of round

_____c. Shank cross cuts; beef for stew

_____d. Arm pot roast or steak; blade pot roast or steak; boneless shoulder pot roast or steak; beef for stew; ground beef

_____e. Pin-bone sirloin steak; flat-bone sirloin steak; wedge-bone sirloin steak

_____f. Standing rib roast; rib steak; rib eye steak or roast

_____g. Club steak; T-bone steak; tenderloin steak or roast

_____h. Ground beef; flank steak

_____i. Short rib; beef for stew; ground beef

1. Chuck
2. Foreshank
3. Rib
4. Brisket
5. Short loin
6. Sirloin
7. Flank
8. Round
9. Short plate

6. Distinguish between Federal Grading Stamp and Federal Inspection Stamp. Write the correct names in the blanks.

______________________________a. Indicates that minimum federal standards have been met

______________________________b. Designates quality of meat; is United States Department of Agriculture (USDA) approved; has seven common grades

7. Arrange federal grades of beef in order of desirability. Write a "1" before the highest quality of beef, a "2" before the next highest, and so on.

_____a. U.S. Prime

_____b. U.S. Utility

_____c. U.S. Choice

_____d. U.S. Standard

_____e. U.S. Canner

_____f. U.S. Good

_____g. U.S. Cutter

_____h. U.S. Commercial

TEST

8. Identify fabricated and preportioned meats by their specifications. Write the correct names in the blanks.

_______________ a. Cut to specific thickness; cut to specific weight; purchased by number of portions per pound

_______________ b. Shaped to specifications; purchased by weight and thickness

9. Select from the following list causes of meat shrinkage. Write an "X" in the blank before each correct answer.

_____ a. Cooking too quickly

_____ b. Amount of connective tissue

_____ c. Placement in oven

_____ d. Degree of doneness

_____ e. High temperatures

_____ f. Length of marinating time

10. State reasons for avoiding meat shrinkage.

a. _______________

b. _______________

c. _______________

11. List two common meat tenderizing methods.

a. _______________

b. _______________

12. State three guidelines for beef cookery.

a. _______________

b. _______________

c. _______________

13. Distinguish between moist heat and dry heat cooking methods for retail cuts of beef. Write an "M" before cuts for which moist heat is recommended, and a "D" before cuts for which dry heat is recommended.

_____ a. Standing rib roast

_____ b. Blade pot roast or steak

TEST

_____c. Short ribs

_____d. Round steak

_____e. Rib steak

_____f. Tenderloin steak

_____g. Arm pot roast or steak

_____h. Beef for stew

_____i. Club steak

_____j. Ground beef

_____k. Heel of round

_____l. T-bone steak

_____m. Flank steak

_____n. Pin-, flat-, or wedge-bone sirloin steak

_____o. Fresh and corned brisket

_____p. Shank cross cuts

14. Describe characteristics of various degrees of doneness for beef steaks and roasts.

Degree of Doneness	Steaks	Roasts
a. ____________	Bright pink	140°F internal temperature
Medium	b. ____________	160°F internal temperature
Well-done	Light brown	c. ____________

15. Select from the following list preparation and cooking techniques that produce a quality pork product. Write an "X" in the blank before each correct answer.

_____a. Use dry heat cooking method if possible

_____b. Slice with the grain of muscle fibers

_____c. Slash fat edges to prevent curling

_____d. Avoid using excess fat in cooking

_____e. Cook to a medium-well state of doneness

_____f. Cook at high temperature to ensure doneness

TEST

16. Describe the characteristics of well-done pork.

____

____

17. List three common types of poultry.

a. ____
b. ____
c. ____

18. Identify common classes of chicken and turkey. Write the correct names in the blanks. Some names may be used more than once.

Tom **Fryer** **Fowl**
Broiler **Hen** **Roaster**

POULTRY CLASS	AGE	SIZE
Chicken		
a. __________	Approximately nine weeks	Usually 2 1/2 pounds; not over 2 3/4 pounds
b. __________	Ten to fourteen weeks	2 to 3 pounds
c. __________	About six months	3 1/2 pounds average
d. __________	Over one year	3 pounds or over
Turkey		
e. __________	Young	4 to 8 pounds
f. __________	Young	8 to 16 pounds
g. __________	Fully grown female	18 to over 24 pounds
h. __________	Fully grown male	Usually 20 to 25 pounds

TEST

19. Discuss poultry selection.

____

____

____

____

20. Select from the following list guidelines for poultry cookery. Write an "X" in the blank before each correct answer.

_____a. Store leftover stuffing inside poultry to enhance flavor

_____b. Stuff poultry *just* prior to roasting

_____c. Cook quickly at high temperatures

_____d. Stuff poultry after roasting

_____e. Add fat to game birds

_____f. Cook poultry breast-side down for juicer, more tender breast meat

_____g. Use a thermometer to determine when poultry has reached desired stage of doneness

21. Select from the following list guidelines for purchasing fish. Write an "X" in the blank before each correct answer.

_____a. Buy fish at truckload sales

_____b. Thaw fish overnight in sink

_____c. Choose fish suitable for intended cooking method

_____d. Be prepared to use fresh fish immediately after purchase, as it deteriorates rapidly

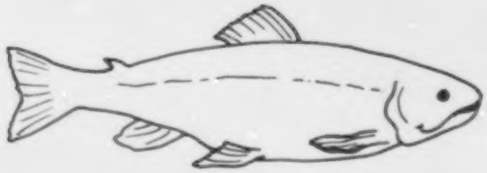
_____e. Consider the form of fish to be used

_____f. Choose fresh fish without a "fishy" odor

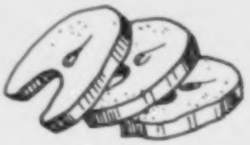
TEST

22. Identify market forms of fish. Write the correct names in the blanks.

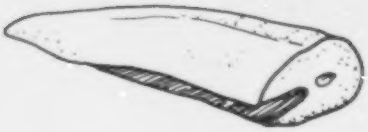
Whole fish
Fish steaks
Fish fillets
Dressed fish
Fish sticks
Butterfly fillet



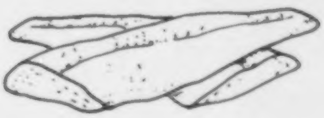
a. ____________________



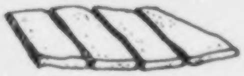
b. ____________________



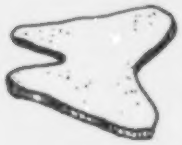
c. ____________________



d. ____________________



e. ____________________



f. ____________________

23. Select from the following list guidelines for fish cookery. Write an "X" in the blank before each correct answer.

_____a. Coat fried fish

_____b. Use moderate heat

_____c. Avoid overcooking

_____d. Cook quickly at high temperatures

_____e. Depend on fish meat to turn golden brown when done

_____f. Use boiling water to cook shellfish

TEST

24. Distinguish between advantages and disadvantages of vegetable proteins as meat substitutes. Write an "A" before advantages, and a "D" before disadvantages.

_____a. Texture and flavor may not be as desirable as that of animal-origin protein

_____b. Generally more economical than animal-origin protein

_____c. Good source of protein for vegetarians and people of certain religious beliefs

_____d. Lack one or more of the essential amino acids that must be supplied from animal sources or other vegetable proteins

25. List vegetable protein meat substitutes.

a. ______________________________

b. ______________________________

(NOTE: Test question 26 lists the job sheets. They are an important part of this test. If they have not been completed, check with your instructor.)

26. Demonstrate the ability to

a. Prepare beef patties.

b. Prepare beef stew.

c. Prepare pork roast.

d. Cut up whole chicken.

e. Prepare deep fat fried chicken.

f. Prepare turkey.

g. Prepare baked fish fillets.

PROTEIN COOKERY II
UNIT V

ANSWERS TO TEST

(NOTE: It may be helpful to use your blank test to make a test key. The points designated in parentheses are intended to be guidelines and should be adapted to meet the needs of each teaching/learning situation. The point total for the entire test is 823. The point total for questions 1-25 is 373; the point total for question 26 is 450.)

1. (46 points)

   a. 13
   b. 1
   c. 14
   d. 2
   e. 6
   f. 17
   g. 10
   h. 4
   i. 18
   j. 3
   k. 11
   l. 8
   m. 15
   n. 7
   o. 16
   p. 9
   q. 12
   r. 5
   s. 19
   t. 22
   u. 23
   v. 21
   w. 20

2. (6 points)

   Description should include the following

   a. Dry heat--Used for tender cuts of meat, or young or large poultry
   b. Moist heat--Used for less tender cuts of meat, or older or smaller poultry

3. (27 points)

   a. M
   b. D
   c. D
   d. M
   e. D
   f. M
   g. M
   h. D
   i. D

ANSWERS TO TEST

4. (32 points)

a. Round
b. Flank
c. Short plate
d. Brisket
e. Sirloin
f. Short loin
g. Rib
h. Chuck
i. Foreshank
j. Jowl
k. Feet
l. Picnic
m. Spareribs
n. Side
o. Ham
p. Loin
q. Boston butt

5. (18 points)

a. 4
b. 8
c. 2
d. 1
e. 6
f. 3
g. 5
h. 7
i. 9

6. (6 points)

a. Federal Inspection Stamp
b. Federal Grading Stamp

7. (32 points)

a. 1
b. 6
c. 2
d. 4
e. 8
f. 3
g. 7
h. 5

8. (4 points)

a. Preportioned meats
b. Fabricated meats

ANSWERS TO TEST

9. (12 points)

   a, d, e

10. (9 points)

    a. Loss of moisture
    b. Loss of weight
    c. Increase in cost per portion

11. (2 points)

    Answer should include any two of the following

    a. Mechanical method
    b. Chemical method
    c. Cookery method
    d. Cutting method

12. (9 points)

    Answer should include any three of the following

    a. Use low to moderate temperature when possible
    b. Do not overcook
    c. Use discretion when salting meat
    d. Use a meat thermometer

13. (48 points)

    a. D
    b. M
    c. M
    d. M
    e. D
    f. D
    g. M
    h. M
    i. D
    j. M

ANSWERS TO TEST

k. M

l. D

m. M

n. D

o. M

p. M

14. (9 points)

a. Rare

b. Pink brown

c. 175°F internal temperature

15. (12 points)

a, c, d

16. (6 points)

Description should include the following

a. Grayish-white in color

b. Internal temperature of 170°F

17. (3 points)

Answer should include any three of the following

a. Chicken

b. Turkey

c. Goose

d. Game birds

18. (16 points)

a. Broiler

b. Fryer

c. Roaster

d. Fowl

e. Fryer

f. Roaster

g. Hen

h. Tom

ANSWERS TO TEST

19. (12 points)

Discussion should include the following

a. Select older or smaller birds for cooking with moist heat

b. Select younger birds for cooking with dry heat

c. Allow 3/4 to 1 pound of ready-to-cook poultry per serving

d. Choose poultry suitable for the intended use

20. (14 points)

b, e, f, g

21. (12 points)

c, d, e, f

22. (12 points)

a.	Whole fish	d.	Fish fillets
b.	Fish steaks	e.	Fish sticks
c.	Dressed fish	f.	Butterfly fillet

23. (12 points)

a, b, c

24. (12 points)

a.	D	c.	A
b.	A	d.	D

25. (2 points)

a. Texturized vegetable protein

b. Meat and seafood analogs

ANSWERS TO TEST

26. Performance skills evaluated to the satisfaction of the clinical instructor

    a. (50 points)

    b. (75 points)

    c. (50 points)

    d. (50 points)

    e. (100 points)

    f. (75 points)

    g. (50 points)

PREPARATION OF CEREALS, BREADS, AND DESSERTS
UNIT VI

UNIT OBJECTIVE

After completing this unit the student should be able to recognize the quality characteristics of cereals, breads, and desserts. The student should also be able to demonstrate the ability to prepare various cereals, breads, and desserts. This knowledge will be shown by completing job sheets and unit test with a minimum score of 85 percent.

SPECIFIC OBJECTIVES

After completing this unit, the student should be able to

1. Match to their correct definitions terms associated with the preparation of cereals, breads, and desserts.
2. Select from a list principles of cereal cookery.
3. Select from a list general procedures used in cooking cereals.
4. State the ratio of ingredients for rice and pasta cookery.
5. Describe quality characteristics of rice and pasta.
6. List classifications of flour mixtures.
7. Identify methods of mixing quick breads.
8. List leavening agents for quick breads.
9. Select from a list factors that influence quality of baked breads.
10. Identify methods of mixing yeast breads.
11. Describe standards for yeast breads.
12. Match yeast bread failures to possible causes.
13. Select from a list standards for muffins.
14. Select from a list standards for biscuits.
15. Select from a list standards for corn bread.
16. Select from a list guidelines for preparing pie crust.
17. Match pie failures to possible causes.

OBJECTIVE SHEET

18. List the classes of cakes.

19. Identify methods of cake preparation.

20. Distinguish between preparation of pans and batter for cakes made with and without fat.

21. Describe desirable characteristics of cakes.

22. Distinguish between methods of icing cakes using icings of different consistencies.

23. List classes of cookies.

24. Arrange in order general steps for mixing most cookies.

25. Demonstrate the ability to

    a. Prepare oatmeal.

    b. Prepare macaroni and cheese.

    c. Prepare rice.

    d. Prepare yeast rolls.

    e. Prepare baking powder biscuits.

    f. Prepare muffins.

    g. Prepare corn bread.

    h. Prepare pie crust.

    i. Prepare cherry pie filling.

    j. Prepare cream puffs.

    k. Prepare butter cake using conventional method.

    l. Prepare chocolate cake using quick-mixing method.

    m. Prepare creamy frosting.

    n. Prepare chocolate chip cookies.

PREPARATION OF CEREALS, BREADS, AND DESSERTS
UNIT VI

SUGGESTED ACTIVITIES

I. Suggested activities

- A. Order materials planned to supplement unit.
- B. Provide students with objective sheet.
- C. Provide students with information and job sheets.
- D. Discuss unit and specific objectives.
- E. Discuss information sheet.
- F. Demonstrate and discuss procedures outlined in job sheets.
- G. Develop appropriate learning activities for special needs students.
- H. Invite a speaker from the Rice Council to talk to the class.
- I. Arrange a field trip to attend a fair or baking contest to observe the different baked products. Let the students judge the entries and compare their decisions with the judges' decisions.
- J. Arrange a baking contest. Have each student bring a yeast roll, a muffin, or a biscuit prepared while completing clinical job sheets.
- K. Ask students to bring their favorite cake recipes to class; let them determine the method used to make the cake.
- L. Give test.
- M. Reteach if necessary.

II. Instructional materials

- A. Objective sheet
- B. Suggested activities
- C. Information sheet
- D. Clinical job sheets
    1. Clinical Job Sheet #1 — Prepare Oatmeal
    2. Clinical Job Sheet #2 — Prepare Macaroni and Cheese
    3. Clinical Job Sheet #3 — Prepare Rice
    4. Clinical Job Sheet #4 — Prepare Yeast Rolls

SUGGESTED ACTIVITIES

5. Clinical Job Sheet #5 — Prepare Baking Powder Biscuits
6. Clinical Job Sheet #6 — Prepare Muffins
7. Clinical Job Sheet #7 — Prepare Corn Bread
8. Clinical Job Sheet #8 — Prepare Pie Crust
9. Clinical Job Sheet #9 — Prepare Cherry Pie Filling
10. Clinical Job Sheet #10 — Prepare Cream Puffs
11. Clinical Job Sheet #11 — Prepare Butter Cake Using Conventional Method
12. Clinical Job Sheet #12 — Prepare Chocolate Cake Using Quick-Mixing Method
13. Clinical Job Sheet #13 — Prepare Creamy Frosting
14. Clinical Job Sheet #14 — Prepare Chocolate Chip Cookies

E. Test

F. Answers to test

III. Unit references

A. Grimes, Vici, and Jerald Chesser. *Food Service: Production and Service.* Stillwater, Oklahoma: State Department of Vocational and Technical Education/Curriculum and Instructional Materials Center, 1976.

B. Kotschever, Lendal H. *Standards, Principles, and Techniques in Quality Food Production,* 3rd ed. Boston: Cahners Books, 1974.

C. Oklahoma State University Department of Food, Nutrition and Institution Administration. *Food Preparation Manual,* 6th ed. Dubuque, Iowa: Kendall/Hunt Publishing Co., 1977.

D. Peckham, Gladys C., and Jeanne Freeland-Graves. *Foundations of Food Preparation,* 4th ed. New York: MacMillan Publishing Co., 1977.

E. West, B.B., et al. *Food for Fifty,* 6th ed. New York: John Wiley and Sons, 1979.

PREPARATION OF CEREALS, BREADS, AND DESSERTS
UNIT VI

INFORMATION SHEET

I. Terms and definitions

A. Beating — Vigorous, regular motion of lifting mixture over and over to introduce air or to smooth mixture

B. Creaming — Working a food until it is soft and creamy

EXAMPLES: Butter, cream cheese

C. Cutting in — Distributing fat into dry ingredients by using a chopping motion to make small particles

D. Fermentation — Enzymatic breakdown of sugar to carbon dioxide and alcohol

(NOTE: Allowing dough to rise at 80°F aids in the fermentation process.)

E. Folding in — Combining two ingredients without losing the air in one of them

F. Gluten — Protein component of wheat that forms the structural framework of baked products

(NOTE: Working the batter or dough develops the gluten.)

G. Kneading — Manipulating dough by using hands or dough hook

(NOTE: A VCM may also be used to prepare breads.)

H. Leavening — Substance that causes a product to rise during baking

I. Mixing — Combining ingredients and blending to distribute evenly throughout the mixture

J. Pasta — Macaroni products

EXAMPLES: Noodles, spaghetti

K. Processed cereals — Quick-cooking cereals that are partially cooked before packing

EXAMPLES: Minute oats, instant oatmeal, cream of wheat

L. Proofing — Providing proper conditions for allowing yeast bread dough to rise

INFORMATION SHEET

M. Punching down — Folding dough inward to the center

(NOTE: This procedure causes large pockets of carbon dioxide to be released, thus producing a finer texture in the bread.)

N. Quick breads — Flour mixtures made with a leavening agent other than yeast

EXAMPLES: Muffins, waffles, biscuits, banana bread

O. Scaling — Dividing dough into uniform weights and shapes

P. Stirring — Moving a spoon or utensil in a circular motion through the contents of a container

II. Principles of cereal cookery

A. Steam produced during cooking penetrates and causes eruption of starch granules in cereal

B. Released starch absorbs water and forms a gel, which thickens cereal as it cooks

C. Whole or cracked cereals require a longer cooking time than flaked or granular cereals in which starch granules are more accessible

D. Cooked cereal held for long periods of time at high temperatures breaks down and becomes thin

III. General procedures used in cooking cereals

A. Measure ingredients accurately

B. Heat water and salt to boiling over direct heat

C. Sprinkle cereal gradually into rapidly boiling water

D. Stir only enough to prevent lumping

E. Reduce heat when cereal has thickened, and complete cooking to desired consistency

(NOTE: Cereal should not be over-cooked so that it becomes mushy and loses the identity of the flakes. Uncooked cereals require a longer cooking time than do processed cereals. Cook cereals thoroughly to avoid the flavor of raw starch.)

INFORMATION SHEET

IV. Ratio of ingredients for rice and pasta cookery

	Quantity	Water	Salt
Rice	1 lb	1 qt	2 t
Pasta	1 lb	1 gal	2 T

(NOTE: Seven to eight pounds of product will yield one hundred 3-ounce servings. Yield will vary with quality. One-eighth cup oil or fat may be added during cooking to prevent foaming.)

V. Quality characteristics of rice and pasta

A. Rice

1. Fluffy
2. Distinct kernels
3. Water absorbed

B. Pasta

1. Tender

   (NOTE: Pasta is cooked to a standard called "al dente," or firm to the tooth.)

2. Firm
3. Distinct pieces

VI. Classifications of flour mixtures

A. Batter

EXAMPLES: Muffins, waffles

B. Dough

EXAMPLES: Biscuits, yeast breads, cookies

(NOTE: These consistency classifications are determined by the ratio of flour to liquid. There are different consistencies of batters and doughs, such as pour or drop batters and soft or stiff doughs.)

INFORMATION SHEET

VII. Methods of mixing quick breads

A. Muffin method

1. Sift combined dry ingredients into mixing bowl
2. Combine liquids, including beaten eggs and oil or melted, slightly cooled fat
3. Add liquids all at once to dry ingredients
4. Mix batter using as few strokes as possible

B. Pastry or biscuit method

1. Sift combined dry ingredients into mixing bowl
2. Cut shortening into flour with knives or pastry blender
3. Add liquid all at once
4. Stir until dough forms a soft ball and leaves sides of bowl
5. Turn dough onto lightly floured board
6. Fold three or four times
7. Roll or lightly pat dough to desired thickness

VIII. Leavening agents for quick breads

A. Baking powder

B. Baking soda

C. Air

D. Steam

(NOTE: When baking soda is used as a leavening agent, sour milk or sweet milk with vinegar added is also used in the recipe.)

IX. Factors that influence quality of baked breads

A. Temperature of ingredients

(NOTE: The temperature should be approximately 70°F to 75°F, neither too hot nor too cold.)

INFORMATION SHEET

B. Method of mixing ingredients

(NOTE: Avoid overmixing, and add ingredients in proper sequence.)

C. Mixing time

(NOTE: The mixing time varies with different recipes. All sugar must be dissolved, all fat evenly distributed, and all gluten properly developed.)

D. Size of baking pan

E. Oven temperature

X. Methods of mixing yeast breads

A. Straight dough method

1. Mix all ingredients together
2. Knead dough until satiny looking and elastic
3. Set dough aside in warm place to rise
4. Knead and divide after dough has doubled in volume
5. Scale dough and form into balls; cover and let rest fifteen minutes
6. Shape dough into loaves

B. Sponge dough method

(NOTE: Because of improved commercial yeasts, this method is used very little today. Older yeasts were uncertain in strength, and the longer fermentation required in this method partially corrected the problem.)

1. Combine yeast, liquid, and one-half to three-quarters of the flour to make a thick batter
2. Let batter rise until light and bubbly
3. Add sugar, salt, fat, and remaining flour
4. Knead dough
5. Scale dough and form into balls; cover and let rest fifteen minutes
6. Shape dough into loaves

INFORMATION SHEET

C. No-knead method

1. Mix all ingredients together

   (NOTE: Recipes using this method use less flour and more fat.)

2. Beat well

   (NOTE: The gluten is developed by beating instead of kneading.)

3. Scale and shape dough into loaves

4. Allow loaves to double in size

   (NOTE: This bread has good volume, but a yeasty taste and coarse crumb.)

D. Cool-rise method

1. Do not scald milk

2. Add flour to other ingredients in two steps and beat vigorously after each addition

3. Roll out dough on a floured surface

4. Scale and shape dough into loaves

5. Place dough in refrigerator to rise

XI. Standards for yeast breads

(NOTE: Bread should be light and should not crumble when sliced.)

A. Exterior

1. Shape — Consistent and even

2. Size — Large for weight

3. Crust

   a. Thin and crisp

   b. Light to golden brown

4. Aroma — Fresh

INFORMATION SHEET

B. Interior

    1. Flavor — Bland
    2. Color — Creamy white
    3. Crumb — Elastic, small air cells, smooth texture

XII. Yeast bread failures and possible causes

A. Heaviness

    1. Low-grade flour
    2. Insufficient rising period
    3. Overraised dough
    4. Too much fat

B. Thick, tough, pale crust

    1. Too much salt
    2. Underraised dough
    3. Overhandling of overraised dough
    4. Too little sugar

C. Dark crumb

    1. Stale yeast
    2. Low-grade flour
    3. Too cool an oven

D. Streaked crumb

    1. Poor mixing of dough
    2. Drying out of dough before shaping

E. Crumbliness

    1. Weak flour
       (NOTE: Weak flour is flour lacking in gluten strength.)
    2. Overraised dough

INFORMATION SHEET

F. Coarse texture

  1. Low-grade flour

  2. Inferior yeast

  3. Too cool an oven

G. Sour flavor

  1. Overraised dough

  2. Incomplete baking

XIII. Standards for muffins

A. Large for weight

B. Rounded top

C. Crispy crust

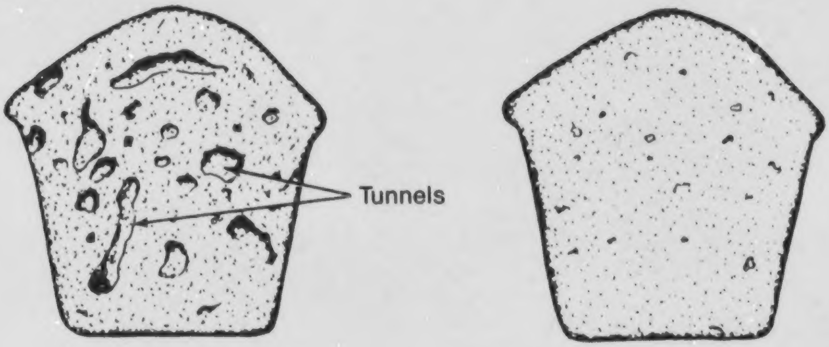
D. Moist and tender crumb

E. No tunnels

(NOTE: Tunnels and peaked tops are caused by overmixing. See Figure 1.)

EXAMPLE:

FIGURE 1



INFORMATION SHEET

XIV. Standards for biscuits

- A. Consistent shape
- B. Uniform size
- C. Evenly browned
- D. Smooth and level top
- E. Moist, tender, creamy white crumb

XV. Standards for corn bread

- A. Good flavor
- B. Not crumbly

  (NOTE: If the corn bread is crumbly, too much fat has been added.)
- C. Golden brown crust
- D. Rough surface
- E. Good volume

  (NOTE: Corn bread should be even and without lumps or cracks.)
- F. Medium texture
- G. Moist

XVI. Guidelines for preparing pies

- A. Produce flaky crust by using firm, “plastic” fats, rather than oil or margarine
- B. Cut in shortening thoroughly, so that particles are pea-sized
- C. Use only enough water to form a soft ball of dough
- D. Handle dough as little as possible

  (NOTE: Repeatedly rolling the dough may make it tough.)
- E. Do not stretch dough when placing in pie pan
- F. Prick a one-shell pie crust with a fork to allow steam to escape

INFORMATION SHEET

G. Prevent shortening in dough from melting by allowing fillings to cool slightly before pouring onto dough

H. Make a good seal by dampening edges of pie crust before fluting or crimping

I. Prevent fruit fillings from boiling out of crust by making sure that fillings contain sufficient solid ingredients

XVII. Pie failures and possible causes

A. Crust shrinks excessively

1. Not enough shortening
2. Too much water
3. Overmixed dough
4. Dough stretched when placed in pan
5. Too cool an oven

B. Crust is tough

1. Too much water
2. Overmixed dough
3. Not enough shortening
4. Too much flour on rolling board

C. Pastry shell is blistered

1. Pastry fitted into pans too tightly
2. Too cool an oven
3. Pastry not pricked enough

D. Bottom crust is soggy

1. Too cool an oven
2. Pastry rolled too thick
3. Not enough bottom heat

INFORMATION SHEET

4. Pie underbaked

5. Filling too thin

6. Too much filling

E. Pie sticks to pan

1. Filling boiled over

2. Wet pan used

3. New pan used

4. Heat circulation uneven

F. Meringue breaks down

1. Moisture in egg whites

2. Whites underwhipped

3. Filling too thin

4. Insufficient sugar used

5. Pie underbaked

6. Pie stored in closed container

G. Meringue shrinks

1. Too hot an oven

2. Did not touch crust all the way around

XVIII. Classes of cakes

A. Made with fat

EXAMPLES: White, yellow, chocolate, spice, pound

B. Made without fat

EXAMPLES: Sponge, angel food

(NOTE: Chiffon cakes are made with oil and resemble sponge cakes.)

INFORMATION SHEET

XIX. Methods of cake preparation

A. Conventional method

(NOTE: Conventional preparation is sometimes called *the* cake method.)

1. Cream fat until light and fluffy
2. Add sugar gradually
3. Continue creaming

   (NOTE: A well-creamed mixture makes a fine-grained cake.)

4. Add eggs and mix
5. Measure sifted flour
6. Sift flour with baking powder and salt
7. Combine milk and flavorings
8. Add flour and milk mixture alternately to egg, sugar, and fat base

   (NOTE: Preparation begins and ends with the flour mixture.)

B. Quick-mixing method

1. Sift dry ingredients into bowl
2. Add fat, milk, and flavorings
3. Beat vigorously for two minutes
4. Add eggs
5. Beat again two minutes or more

XX. Preparation of pans and batter for cakes made with and without fat

A. Cakes made with fat

1. Grease and flour bottom of cake pan

   (NOTE: The bottom can also be covered with waxed paper.)

2. Spread batter so that it is thicker at edges than in center

   (NOTE: Because the edges set more quickly than the center, this procedure results in a more uniform thickness.)

INFORMATION SHEET

B. Cakes made without fat
   1. Bake in unoiled pan
   2. Turn pan to distribute mixture evenly
   3. Eliminate large air spaces by gently drawing a knife through the batter

XXI. Desirable characteristics of cakes
   A. Appearance
      1. Even thickness
      2. Flat or slightly rounded top
      3. Smooth, fine-grained surface
   B. Color — Uniform, golden brown
   C. Moistness — Slightly moist
   D. Texture
      1. Fine, velvety
      2. Small, evenly distributed air cells
      3. Resilient; does not crumble when cut
      4. Tender
   E. Flavor
      1. Delicate, well-blended
      2. Sweet

XXII. Methods of icing cakes using icings of different consistencies
   A. Heavy icing
      1. Ice sides
      2. Ice top
      3. Meet top and sides
      4. Finish smoothly with spatula dipped in warm water

INFORMATION SHEET

- B. Thin icing
  - 1. Pour icing on top of cake
  - 2. Work down sides
  - 3. Smooth off with spatula
- XXIII. Classes of cookies

  (NOTE: These classes are based on the proportions of various ingredients.)
  - A. Rolled

    EXAMPLE: Sugar cookies
  - B. Drop

    EXAMPLES: Chocolate chip, oatmeal cookies
  - C. Sheet or bar

    EXAMPLE: Brownies
  - D. Molded

    EXAMPLE: Peanut butter cookies
  - E. Pressed

    EXAMPLE: Spritz cookies
  - F. Refrigerator or sliced

    EXAMPLE: Pinwheel cookies
- XXIV. General steps for mixing most cookies
  - A. Cream shortening and sugar well
  - B. Blend in egg
  - C. Add sifted dry ingredients alternately with liquid

    (NOTE: Oats, coconut, nuts, and flavor chips are added with the dry ingredients.)
  - D. Shape and place on cookie sheet

    (NOTE: Remember to allow enough space for the cookies to spread during baking.)

PREPARATION OF CEREALS, BREADS, AND DESSERTS
UNIT VI

CLINICAL JOB SHEET #1 — PREPARE OATMEAL

I. Equipment

A. Measuring cups

B. Measuring spoons

C. Scales

D. Stockpot or steam-jacketed kettle

E. Spoon

F. Wire whip

G. Half steam table pan, 8 inches deep

H. One-quart ladle

II. Ingredients

(NOTE: The following ingredients will yield approximately thirty-five servings.)

A. Water, 2 gal

B. Salt, 3 T

C. Oats, 2 lb or 3 qt

III. Procedure

A. Measure water and salt into stockpot or steam-jacketed kettle

B. Bring water and salt to a rolling boil

C. Stir oats gradually into boiling water, using wire whip

D. Stir occasionally to prevent sticking

(NOTE: Do not stir excessively.)

E. Reduce heat and cook until oats reach desired consistency

F. Ladle into steam table pan

G. Keep covered until ready to serve

H. Return equipment and supplies to their proper places and clean work area

CLINICAL JOB SHEET #1

IV. Product evaluation

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring — ____________________
2. Temperature of cookery — ____________________
3. Preparation — ____________________

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments: ____________________

PREPARATION OF CEREALS, BREADS, AND DESSERTS
UNIT VI

CLINICAL JOB SHEET #2 — PREPARE MACARONI AND CHEESE

I. Equipment

- A. Two steam table pans, 2 inches deep
- B. Two saucepans
- C. Stockpot
- D. Food grater
- E. Wire whip
- F. Spoon
- G. Colander
- H. Baker's scale
- I. Liquid measures
- J. Dry measures
- K. Range

II. Ingredients

(NOTE: The following ingredients will yield fifty 5-ounce servings.)

- A. Macaroni, 3 lb or 3 qt
- B. Cheddar cheese, 2 lb or 2 qt
- C. Butter or margarine, 6 oz or $^3/_4$ c
- D. Flour, 6 oz or 1 $^1/_2$ c
- E. Milk, 3 qt
- F. Salt to taste
- G. Pepper to taste

III. Procedure

- A. Grate cheddar cheese and set aside
- B. Heat milk in saucepan on range

CLINICAL JOB SHEET #2

C. Preheat oven to 375°F

D. Place 1 gallon water in stockpot

E. Add salt

F. Bring to a boil on range

G. Add macaroni

H. Stir occasionally

I. Boil seven minutes or to "al dente" stage

J. Drain macaroni in colander

(NOTE: Pasta should not be rinsed unless it is to be used cold.)

K. Return macaroni to stockpot and set aside

L. Place butter or margarine in saucepan

M. Heat slightly to melt

N. Add flour to butter or margarine and blend with wire whip

O. Cook slightly

P. Add hot milk

Q. Stir constantly to make smooth cream sauce

R. Blend cream sauce into cooked macaroni

S. Season with salt and pepper

T. Stir in half of grated cheese

U. Blend thoroughly

V. Place in steam table pans

W. Top with remaining cheese

X. Bake in oven until brown, about thirty-five minutes

Y. Serve

Z. Return equipment and supplies to their proper places and clean work area

CLINICAL JOB SHEET #2

IV. Product evaluation

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring — ____________________
2. Temperature of cookery — ____________________
3. Preparation — ____________________

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments: ____________________

PREPARATION OF CEREALS, BREADS, AND DESSERTS
UNIT VI

CLINICAL JOB SHEET #3 — PREPARE RICE

Stockpot or steam-jacketed kettle method

A. Equipment

1. Stockpot or steam-jacketed kettle with lid
2. Spoon
3. Steam table pan, 2 inches deep
4. Scales or dry measures
5. Liquid measures
6. Range

B. Ingredients

(NOTE: This recipe will yield approximately fifty 4-ounce servings.)

1. Converted rice, 3 lb or 6 c

   (NOTE: If regular white rice is used, the cooking time may need to be reduced.)

2. Water, 3¾ qt
3. Salt, 2 T
4. Margarine or oil, 2 T

   (NOTE: Addition of margarine or oil is optional but may keep the rice from sticking together and reduce foaming.)

C. Procedure

1. Bring water, salt, and margarine or oil to a boil in stockpot on range
2. Stir in rice
3. Cover pan tightly with lid
4. Cook on low heat until rice is tender and all water is absorbed, about fifteen minutes
5. Remove from heat and let stand covered five to ten minutes

CLINICAL JOB SHEET #3

6. Pour into steam table pan
7. Return equipment and supplies to their proper places and clean work area

II. Oven or steamer method

- A. Equipment
    1. Oven or steamer
    2. Spoon
    3. Steam table pan, 2 inches deep, with lid
    4. Range
    5. Stockpot
    6. Scales or dry measures
    7. Liquid measures
- B. Ingredients
    1. Converted rice, 3 lb or 6 c
    2. Water, 3¾ qt
    3. Salt, 2 T
    4. Margarine or oil, 2 T
- C. Procedure
    1. Place rice in steam table pan
    2. Bring water to a boil in stockpot on range
    3. Add salt to boiling water
    4. Pour over rice
    5. Cover pan tightly with lid
    6. Place in oven or steamer
    7. Bake at 350°F or steam at 5 pounds pressure for thirty to thirty-five minutes
    8. Remove from oven or steamer and let stand covered five minutes
    9. Pour into steam table pan
    10. Return equipment and supplies to their proper places and clean work area

CLINICAL JOB SHEET #3

IV. Product evaluation

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring — ____________________
2. Temperature of cookery — ____________________
3. Preparation — ____________________

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments: ____________________

PREPARATION OF CEREALS, BREADS, AND DESSERTS
UNIT VI

CLINICAL JOB SHEET #4 — PREPARE YEAST ROLLS

I. Equipment

- A. Scales
- B. Board or table
- C. Seven muffin tins
- D. Two ten- or twenty-quart mixing bowls
- E. Spoon
- F. Dough scraper
- G. Liquid measures
- H. Dry measures
- I. Mixer
- J. Dough hook

II. Ingredients

(NOTE: These ingredients will yield 7 dozen 1½-ounce rolls.)

- A. Compressed yeast, approximately 3 oz or 2 cakes
- B. Lukewarm water, 1 qt + 1 c
- C. Melted oil or fat, 7 oz or scant 1 c
- D. Nonfat dry milk, 3¼ oz or ¾ c + 1 T
- E. Sugar, 5¼ oz or ½ c + 2 T
- F. Salt, 3½ T
- G. All-purpose flour, approximately 4 lb 4 oz or 1 gal + 1 c

III. Procedure

- A. Add yeast to lukewarm water in ten- or twenty-quart bowl

CLINICAL JOB SHEET #4

B. Let yeast rest

C. Stir after ten minutes

D. Add fat, milk, sugar, and salt

E. Add flour slowly, while using dough hook, until dough leaves sides and bottom of bowl

(NOTE: Dough should be soft but not sticky.)

F. Form dough into a smooth ball

G. Place in a greased bowl and turn dough to grease top

H. Cover and let rise in a warm place (85°F) until increased two to three times in volume (about one hour)

(NOTE: Proofing is complete when a light touch of the fingers leaves an impression in the dough.)

I. Punch down

J. Cut into three portions with dough scraper

K. Form each portion into a ball

L. Cover

M. Let rest for fifteen minutes

N. Preheat oven to 400°F

O. Shape into rolls of approximately 1½ ounces each

P. Place in lightly greased muffin tins

Q. Let rise until increased two to two and one-half times in volume (about one and one-half hours)

R. Bake twenty-five to thirty minutes at 400°F

(NOTE: A small pan of water placed in the oven gives a tender crust.)

S. Return equipment and supplies to their proper places and clean work area

FPW - 367-C

CLINICAL JOB SHEET #4

IV. Product evaluation

Check the box that describes your rating of the product.						
	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring —
2. Temperature of cookery —
3. Preparation —

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments:

PREPARATION OF CEREALS, BREADS, AND DESSERTS
UNIT VI

CLINICAL JOB SHEET #5 — PREPARE BAKING POWDER BISCUITS

I. Equipment

A. Scales

B. Liquid measures

C. Dry measures

D. Board or table

E. Spoon

F. Dough scraper

G. Sheet pan

H. Two-inch biscuit cutter

I. Pastry brush

J. Rolling pin

K. Mixer

L. Pastry knife attachment

M. Mixer bowl

II. Ingredients

(NOTE: These ingredients will yield 130 2-inch biscuits.)

A. Flour, 5 lb or 1 gal + 1 qt

B. Baking powder, 5 oz or 1/2 c + 2 T

C. Salt, 2 T

D. Shortening, 1 lb 4 oz or 2 3/4 c + 1 T

E. Milk, 1 3/4 to 2 qt

CLINICAL JOB SHEET #5

III. Procedure

A. Place dry ingredients and shortening in mixing bowl

B. Mix dry ingredients with shortening on low speed until shortening has been cut in

(NOTE: Ingredients should be pea-sized.)

C. Add milk and blend

D. Turn onto lightly floured board

E. Divide into halves

F. Shape lightly

G. Preheat oven to 425°F

H. Roll out to 1/2-inch thickness

I. Cut with floured 2-inch biscuit cutter

J. Place on baking sheets, approximately 1 inch apart

K. Bake at 425°F for twelve to fifteen minutes

L. Return equipment and supplies to their proper places and clean work area

CLINICAL JOB SHEET #5

IV. Product evaluation

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring — ______________________________
____

2. Temperature of cookery — ______________________________
____

3. Preparation — ______________________________
____

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments: ______________________________
____
____
____
____

PREPARATION OF CEREALS, BREADS, AND DESSERTS
UNIT VI

CLINICAL JOB SHEET #6 — PREPARE MUFFINS

I. Equipment

A. Mixer

B. Two mixer bowls

C. Flat beater attachment

D. Scales or measuring cups

E. Five muffin tins

F. Spatula

G. Dipper, #16

II. Ingredients

(NOTE: These ingredients will yield 5 dozen muffins.)

A. Flour, 2 lb 8 oz or 2 qt + 1 pt

B. Baking powder, 2 oz or ¼ c

C. Salt, 1 T

D. Sugar, 6 oz or ¾ c

E. Eggs, 4 beaten

F. Milk, 1½ qt

G. Melted, cooled fat, 8 oz or 1 c

III. Procedure

A. Combine dry ingredients in mixing bowl

B. Combine eggs, milk, and fat in another mixing bowl

C. Add combined eggs, milk, and fat to dry ingredients

CLINICAL JOB SHEET #6

D. Mix about thirty seconds at low speed to blend

(NOTE: Batter will still be lumpy.)

E. Preheat oven to 400°F

F. Measure with #16 dipper into greased muffin tins

(NOTE: Muffin cups should be about two-thirds full. Batter should be dipped all at once with as little handling as possible to prevent overmixing.)

G. Bake at 400°F about twenty-five minutes until golden brown

H. Return equipment and supplies to their proper places and clean work area

CLINICAL JOB SHEET #6

IV. Product evaluation

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring — ____________________

2. Temperature of cookery — ____________________

3. Preparation — ____________________

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments: ____________________

PREPARATION OF CEREALS, BREADS, AND DESSERTS
UNIT VI

CLINICAL JOB SHEET #7 — PREPARE CORN BREAD

I. Equipment

  A. Liquid measures

  B. Measuring spoons

  C. Baking pan, 12" × 20" × 2"

  D. Spatula

  E. Two mixing bowls

  F. Spoon

  G. Saucepan

  H. Range

  I. Mixer

  J. Flat beater attachment

  K. Pastry brush

  L. Scales

  M. Dry measures

II. Ingredients

(NOTE: This recipe will yield approximately forty-eight 2-by-2½-inch servings.)

  A. Cornmeal, 1 lb 4 oz or 3¾ c

  B. Flour, 1 lb 5 oz or 1 qt + 1 c

  C. Sugar, 6 oz or ¾ c

  D. Salt, 1 oz or 1½ T

  E. Baking powder, 2 oz or ¼ c

  F. Eggs, 5

  G. Milk, 1 qt

CLINICAL JOB SHEET #7

H. Fat, 6 oz or 1 c

III. Procedure

A. Melt fat in saucepan on range

B. Set aside and let cool

C. Combine cornmeal, flour, sugar, and baking powder in mixing bowl

D. Beat eggs in another mixing bowl

E. Stir milk and melted fat into eggs

F. Add egg mixture to dry ingredients

G. Mix on low speed until ingredients are moistened

H. Preheat oven to 400°F

I. Grease pan with pastry brush

J. Spread mixture into pan

K. Bake at 400°F for thirty-five minutes

L. Cut corn bread into 2-by-2½-inch pieces to yield forty-eight portions

M. Serve

N. Return equipment and supplies to their proper places and clean work area

CLINICAL JOB SHEET #7

IV. Product evaluation

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring — ______________________________

____

2. Temperature of cookery — ______________________________

____

3. Preparation — ______________________________

____

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments: ______________________________

____

____

____

FPW - 381-C

PREPARATION OF CEREALS, BREADS, AND DESSERTS
UNIT VI

CLINICAL JOB SHEET #8 — PREPARE PIE CRUST

I. Equipment

   A. Measuring spoons

   B. Measuring cups or scales

   C. Pastry knife attachment

   D. Eight 8-inch pie pans

   E. Mixer

   F. Mixing bowl

   G. Mixing spoon

   H. Rolling pin

II. Ingredients

   (NOTE: These ingredients will yield eight 8-inch two-crust pies.)

   A. All purpose flour, 2 lbs or 8 c

   B. Shortening, 1 lb 8 oz or 3 c

   C. Salt, $1\frac{1}{2}$ T

   D. Cold water, $1\frac{1}{2}$ c to $1\frac{3}{4}$ c

III. Procedure

   A. Place flour in mixing bowl

   B. Add shortening

   C. Mix on low speed for one minute

   D. Add water and salt to flour mixture

   E. Mix on low speed until dough is formed

CLINICAL JOB SHEET #8

F. Portion into 5-ounce balls for bottom crusts and 4-ounce balls for top crusts

G. Preheat oven to 425°F

H. Place mixture on lightly floured work table

I. Roll out pie crust to $^1/_8$-inch thickness

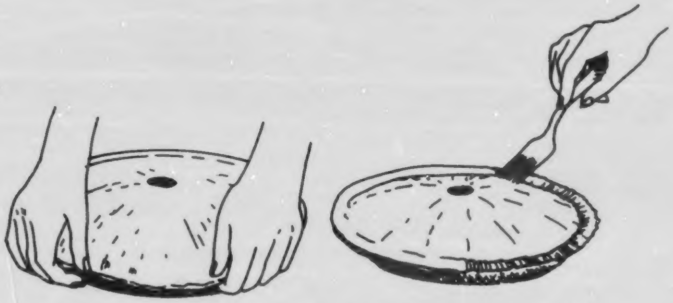
J. Place crust loosely in pie pan

(NOTE: This procedure allows for shrinkage as the crust bakes.)

K. Bake crust in a 425°F oven for ten minutes or until lightly browned

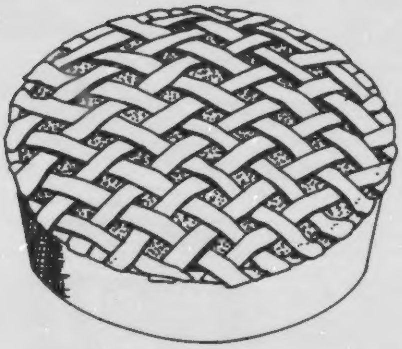
(NOTE: For two-crust pies, add cooled filling, and then moisten edges before adding perforated or lattice top crust and sealing edges. See Figures 2 and 3.)

FIGURE 2



Perforated

FIGURE 3



Lattice

L. Return equipment and supplies to their proper places and clean work area

CLINICAL JOB SHEET #8

IV. Product evaluation

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring — ____________________
2. Temperature of cookery — ____________________
3. Preparation — ____________________

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments: ____________________

FPW - 385-C

PREPARATION OF CEREALS, BREADS, AND DESSERTS
UNIT VI

CLINICAL JOB SHEET #9 — PREPARE CHERRY PIE FILLING

I. Equipment

A. Saucepan

B. Stirring spoon

C. Measuring cups or scales

D. Measuring spoons

E. Can opener

F. Colander

G. Range

II. Ingredients

(NOTE: These ingredients will yield three 9-inch pies.)

A. All juice drained from fruit

B. Sugar, 1½ lb or 3 c

C. Cinnamon, 1 T + 1½ t

D. Salt, ½ t

E. Lemon juice, 3 T

F. Cornstarch, 3½ oz or ¾ c

G. Butter or margarine, 3 oz or 6 T

H. Sour, pitted cherries, one #10 can or 12 c, drained

I. Water, ¾ c

III. Procedure

A. Drain cherries in colander

B. Place cherry juice, sugar, cinnamon, salt, and lemon juice in saucepan

C. Stir well

CLINICAL JOB SHEET #9

D. Bring to a boil on range

E. Dissolve cornstarch in 3/4 cup water

F. Add to boiling syrup slowly

G. Add butter or margarine

H. Stir well

I. Remove syrup from range

J. Fold cherries in gently

(NOTE: Food coloring may be added for brighter color. One-eighth teaspoon almond flavoring may also be added for a different flavor.)

K. Cool slightly

L. Pour filling into pie shells

M. Preheat oven to 425°F

N. Dampen edges of bottom crusts

O. Place perforated or lattice top crusts in place; flute or crimp edges

P. Bake in a 425°F oven for approximately thirty-five minutes or until light brown

Q. Return equipment and supplies to their proper places and clean work area

FPW - 387-C

CLINICAL JOB SHEET #9

IV. Product evaluation

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unaccept-able
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring — ______________________________

2. Temperature of cookery — ______________________________

3. Preparation — ______________________________

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments: ______________________________

PREPARATION OF CEREALS, BREADS, AND DESSERTS
UNIT VI

CLINICAL JOB SHEET #10 — PREPARE CREAM PUFFS

I. Equipment

   A. Measuring spoons

   B. Measuring cups or scales

   C. Saucepan

   D. Mixing bowl

   E. Mixer with flat beater attachment

   F. Spoon

   G. Stirring spoon

   H. Sheet pan

   I. Dipper, #24

   J. Range

II. Ingredients

   (NOTE: These ingredients will yield twenty cream puffs.)

   A. Water, 1 c

   B. Salt, 1/4 t

   C. Vegetable oil, 1/2 c

   D. All purpose flour, 5 oz or 1 1/4 c

   E. Eggs, 5

   F. Milk, 1/4 c

   G. Baking powder, 1/2 t

III. Procedure

   A. Place water, salt, and vegetable oil in sauce pan

   B. Bring mixture to a boil on range

CLINICAL JOB SHEET #10

C. Add flour to mixture

D. Stir constantly

E. Stir until a thick, smooth paste is formed

F. Remove pan from range

G. Place hot paste into mixing bowl

H. Allow paste to cool

I. Add one egg at a time

J. Blend well after each egg is added

K. Add baking powder and milk

L. Blend until smooth

M. Preheat oven to 425°F

N. Drop batter onto sheet pan with #24 dipper

(NOTE: Paste may be put in a pastry bag and squeezed out.)

O. Round off with spoon

P. Bake at 425°F for fifteen minutes

Q. Turn oven down to 325°F and bake for an additional 30 minutes

(NOTE: Because the shells are generally filled with moist fillings, such as custards, creams, or hot foods, they must be dry and well baked in order to support the fillings without becoming soggy.)

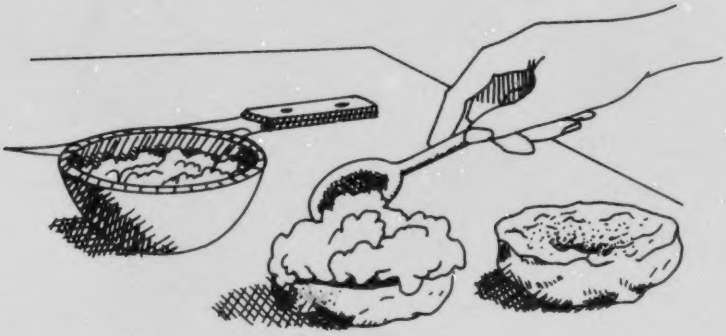
R. Cut cream puff shells in half

CLINICAL JOB SHEET #10

S. Fill bottom half with whipped cream or other filling (Figure 4)

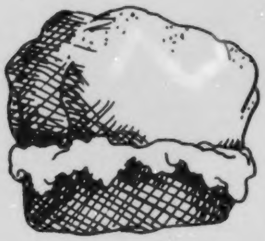
(NOTE: A pastry bag may also be used to fill the cream puffs.)

FIGURE 4



T. Replace top of shell (Figure 5)

FIGURE 5



U. Add topping of your choice

EXAMPLES: Whipped topping and cherry, chocolate curls, coconut, powered sugar

(NOTE: Eclairs are prepared using the same recipe, but are spooned out in a rectangular shape of approximately 2 by 6 inches.)

V. Return equipment and supplies to their proper places and clean work area

CLINICAL JOB SHEET #10

IV. Product evaluation

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring — ______________________________

____

2. Temperature of cookery — ______________________________

____

3. Preparation — ______________________________

____

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments: ______________________________

____

____

____

____

PREPARATION OF CEREALS, BREADS, AND DESSERTS
UNIT VI

CLINICAL JOB SHEET #11 — PREPARE BUTTER CAKE USING CONVENTIONAL METHOD

I. Equipment

A. Mixing bowl

B. Mixing spoon

C. Mixer

D. Flat beater attachment

E. Measuring spoons

F. Measuring cups

G. Sifter

H. Cake rack

I. Two 9-inch round cake pans

J. Oven

II. Ingredients

(NOTE: These ingredients will yield two 9-inch layers.)

A. Sugar, 12 oz or $1^{1}/_{2}$ c

B. Salt, 1 t

C. Shortening, 8 oz or $^{3}/_{4}$ c

D. Eggs, 3

E. Milk, 1 c

F. Vanilla, 1 t

G. Cake flour, 9 oz or $2^{3}/_{4}$ c

H. Baking powder, $3^{1}/_{2}$ t

CLINICAL JOB SHEET #11

III. Procedure

- A. Preheat oven to 375°F
- B. Grease and flour cake pans
- C. Remove eggs from refrigerator
- D. Blend sugar, salt, and shortening in mixing bowl until creamy and smooth
- E. Mix until soft and fluffy
- F. Scrape sides of bowl
- G. Add eggs separately
- H. Cream between each addition of eggs
- I. Sift flour and baking powder together
- J. Add flour mixture alternately with milk and vanilla in four parts, beginning and ending with flour
- K. Mix after each addition
- L. Mix until batter is smooth
- M. Fill pans half to two-thirds full
- N. Bake twenty-five to thirty minutes or until golden brown
- O. Test for doneness

  (NOTE: If the cake springs back after gently touching with finger, it is done. Do not move cakes in oven if they are soft or semiliquid. Do not open and shut or slam oven door during the baking process.)
- P. Cool cake on rack for ten minutes after removing from oven
- Q. Run a knife around edge of pan to remove cake from pan while still warm
- R. Turn upside down on cooling rack
- S. Return equipment and supplies to their proper places and clean work area

CLINICAL JOB SHEET #11

IV. Product evaluation

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring — ____________________
2. Temperature of cookery — ____________________
3. Preparation — ____________________

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments: ____________________

PREPARATION OF CEREALS, BREADS, AND DESSERTS
UNIT VI

CLINICAL JOB SHEET #12 — PREPARE CHOCOLATE CAKE USING QUICK-MIXING METHOD

I. Equipment

A. Mixing bowl

B. Spoon

C. Mixer with flat beater attachment

D. Measuring spoons

E. Scales or dry measures

F. Sifter

G. Cake rack

H. Baking pan, 12" × 20" × 2"

I. Oven

II. Ingredients

(NOTE: This recipe will yield forty-eight servings cut in 2-by-2½-inch pieces.)

A. Cake flour, 1 lb 3 oz or 5½ c

B. Cocoa, 6 oz or 1½ c

C. Sugar, 1 lb 14 oz or 3¾ c

D. Fat, 10 oz or scant 1½ c

E. Salt, 1½ t

F. Milk, 1¼ c

G. Eggs, 5

H. Vanilla, 1 T

I. Baking powder, 2½ T

CLINICAL JOB SHEET #12

III. Procedure

A. Preheat oven to 350°F

B. Grease and flour baking pan

C. Sift cake flour, sugar, cocoa, salt, and baking powder into mixing bowl

D. Mix dry ingredients together at low speed

E. Add fat, milk, and vanilla to dry ingredients

F. Beat two minutes at medium speed

G. Add eggs

H. Beat again two minutes or more or until batter is smooth

I. Scrape batter into baking pan

J. Level batter with spatula

K. Bake forty to forty-five minutes

L. Test for doneness

(NOTE: If the cake springs back after gently touching with finger, it is done. Do not move cakes in oven if they are soft or semiliquid. Do not open and shut or slam oven door during the baking process.)

M. Cool cake on rack for ten minutes after removing from oven

N. Return equipment and supplies to their proper places and clean work area

CLINICAL JOB SHEET #12

IV. Product evaluation

Check the box that describes your rating of the product.						
	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring — ____________________

2. Temperature of cookery — ____________________

3. Preparation — ____________________

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments: ____________________

ANSWERS TO TEST

20. Performance skills evaluated to the satisfaction of the clinical instructor

    a. (75 points)

    b. (75 points)

    c. (75 points)

    d. (75 points)

    e. (75 points)

    f. (100 points)

    g. (75 points)

PREPARATION OF SANDWICHES AND SOUPS, AND THE USE OF SEASONINGS
UNIT VIII

UNIT OBJECTIVE

After completing this unit, the student should be able to prepare a variety of quality sandwiches and soups. The student should also be able to select and use seasonings to enhance the flavor of food. This knowledge will be shown by completing assignment sheets, job sheets, and unit test with a minimum score of 85 percent.

SPECIFIC OBJECTIVES

After completing this unit, the student should be able to

1. Match to their correct definitions terms associated with sandwich and soup preparation and the use of seasonings.
2. Distinguish among classifications of hot and cold sandwiches.
3. List sandwich ingredients.
4. List suggestions for preparing sandwiches.
5. Select from a list work-improvement methods in preparing cold sandwiches.
6. Match basic kinds of stock to their correct ingredients.
7. Arrange in order steps in preparing stock.
8. Arrange in order steps in clarifying broth.
9. List basic types of soups.
10. Arrange in order steps in thickening cream soups.
11. Select from a list standards for quality soups.
12. List types of seasonings.
13. Select from a list seasoning techniques.
14. Select from a list guidelines for storing seasonings.
15. Prepare a chart of seasonings and their uses.
16. Demonstrate the ability to
    a. Prepare grilled cheese sandwiches.
    b. Prepare tuna salad sandwiches.
    c. Prepare a tray of canapes.
    d. Prepare vegetable beef soup.
    e. Prepare cream of potato soup.

PREPARATION OF SANDWICHES AND SOUPS, AND THE USE OF SEASONINGS
UNIT VIII

SUGGESTED ACTIVITIES

I. Suggested activities

A. Order films to supplement unit.

1. *Sandwich Preparation and Presentation*. Color, 16mm, 10 minutes, National Educational Media, Inc., 1979. Available from National Educational Media, Inc., 15760 Ventura Boulevard, Encino, California 91436. Rental fee required.

2. *Fast Sandwich Making*. Color, 16mm, 10 minutes, National Educational Media, Inc., 1979. Available from National Educational Media, Inc., 15760 Ventura Boulevard, Encino, California 91436. Rental fee required.

(NOTE: These films are also available in 3/4-inch U-Matic and 1/2-inch Betamax and VHS videocassettes and in super 8mm automatic cartridge systems from Fairchild, MPO, Technicolor, and Kodak.)

B. Make transparency.

C. Provide students with objective sheet.

D. Provide students with information, assignment, and job sheets.

E. Discuss unit and specific objectives.

F. Discuss information and assignment sheets.

G. Demonstrate and discuss procedures outlined in job sheets.

H. Develop appropriate learning activities for special needs students.

I. Arrange a visit to a company that prepares sandwiches in quantity for vending machines.

J. Prepare and taste products made with some of the less-known spices.

K. Arrange for the class to visit with a soup chef.

L. Use a word association game to help students learn terms and definitions.

M. Review "Work Simplification," Section D, Unit VI, *Food Service Worker.*

N. Give test.

O. Reteach if necessary.

SUGGESTED ACTIVITIES

II. Instructional materials

   A. Objective sheet

   B. Suggested activities

   C. Information sheet

   D. Transparency master: TM #1--Sandwich Production

   E. Class assignment sheets

      1. Class Assignment Sheet #1--Prepare a Chart of Seasonings and Their Uses

      2. Class Assignment Sheet #2--Complete a Crossword Puzzle

   F. Answers to class assignment sheets

   G. Clinical job sheets

      1. Clinical Job Sheet #1--Prepare Grilled Cheese Sandwiches

      2. Clinical Job Sheet #2--Prepare Tuna Salad Sandwiches

      3. Clinical Job Sheet #3--Prepare a Tray of Canapes

      4. Clinical Job Sheet #4--Prepare Vegetable Beef Soup

      5. Clinical Job Sheet #5--Prepare Cream of Potato Soup

   H. Test

   I. Answers to test

III. Unit references

A. Grimes, Vici, and Jerald Chesser. *Food Service: Production and Service*. Stillwater, Oklahoma: State Department of Vocational and Technical Education/Curriculum and Instructional Materials Center, 1976.

B. Kotschevar, Lendal H. *Standards, Principles, and Techniques in Quantity Food Production*, 3rd ed. Boston: Cahners Books, 1974.

C. Ray, Mary F., and Evelyn J. Lewis. *Exploring Professional Cooking.* Peoria, Illinois: Chas. A. Bennet Company, Inc., 1976.

D. Ray, Mary F., and Evelyn J. Lewis. *Quantity Food Production.* Peoria, Illinois: Chas. A. Bennett, Company, Inc., 1976.

PREPARATION OF SANDWICHES AND SOUPS, AND THE USE OF SEASONINGS
UNIT VIII

INFORMATION SHEET

I. Terms and definitions (Class Assignment Sheet #2)

A. Canape--Small, open-faced sandwich used for an appetizer

B. Meat salad--Meat mixed with a salad dressing or mayonnaise

(NOTE: Meat salads may also include egg salad, and all may be mixed with other ingredients such as chopped celery or pickles.)

C. Soup--Liquid or semiliquid food

D. Stock--Basis for many soups; made by simmering meat, poultry, fish, and/or vegetables in water to extract their flavors

E. Broth--Stock from which meat and vegetables have been removed

F. Clarify--To remove from broth particles that are too fine to be strained out

G. Bouillon--Clarified beef broth

H. Consomme--Light or white broth

I. Cream soup--Thin white sauce and mashed or strained vegetables or meat

J. Bisque--Mixture of chopped shellfish and broth in a thickened cream soup

K. Puree--Thick soup made of strained, cooked vegetables

L. Chowder--Unstrained, thick, heavy soup made of vegetables or meat

M. Seasoning--Additive that enhances flavor of food

N. Spice--Vegetable substance used to flavor food; strong in flavor and odor

EXAMPLES: Cinnamon, nutmeg, cloves

O. Herb--Parts of a plant used to flavor food; delicate in flavor

EXAMPLES: Basil, sage, mint, thyme

P. Flavoring--Additive that gives flavor to food but is not a spice or herb

EXAMPLES: Almond extract, vanilla

Q. Blend--Combination of seasonings added together

INFORMATION SHEET

II. Classifications of hot and cold sandwiches

(NOTE: This is an arbitrary classification of sandwiches to aid in learning the great variety available. Sandwiches may be served open-faced or between two slices of bread.)

A. Hot

1. Open-faced with gravy

   EXAMPLES: Roast beef, pork, turkey

2. Broiled

   EXAMPLE: Open-faced topped with chesse

3. Grilled

   EXAMPLES: Grilled cheese, Reuben

4. Deep-fried

   EXAMPLE: Monte Cristo

5. Baked

   EXAMPLE: Cheese strata

6. Served on a bun

   EXAMPLE: Hamburger

B. Cold

1. Regular

   EXAMPLES: Sliced turkey, ham salad, peanut butter and jelly

2. Club

   (NOTE: A club sandwich has three slices of bread and two meat fillings.)

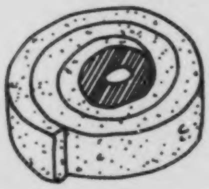
   EXAMPLE: Bacon, turkey, lettuce, and tomato

INFORMATION SHEET

3. Rolled or pinwheel (Figure 1)

   EXAMPLE:

FIGURE 1



4. Canape
5. Specialty

   EXAMPLES: Submarine, hoagie, hero, pocket

III. Sandwich ingredients

A. Bread

EXAMPLES: White, wheat, rye, oatmeal, pumpernickel, buns, hard rolls, Boston brown bread, nut or fruit breads

(NOTE: Quick breads have a more cakelike texture and are normally used to make dainty tea sandwiches.)

B. Spread

(NOTE: The spread adds flavor and helps prevent the filling from soaking into the bread.)

EXAMPLES: Whipped butter, margarine

C. Filling

EXAMPLES: Sliced meat, cheese, meat salads

D. Garnish

EXAMPLES: Lettuce, pickles, avocado, bean sprouts

IV. Suggestions for preparing sandwiches (Clinical Job Sheets #1-#3)

A. Slice bread 1/4 inch to 1/2 inch thick

B. Use day-old bread

(NOTE: Extremely fresh bread tears easily when spread and may make soggy sandwiches. Bread refrigerated prior to use is easier to spread.)

INFORMATION SHEET

- C. Use whipped butter or margarine

  (NOTE: To prepare whipped butter, add 1/2 cup milk to 1 pound of butter, and then whip.)

- D. Spread butter or margarine to edges of bread
- E. Be careful not to mash bread
- F. Cut meat to fit bread
- G. Use uniform 1-ounce to 2-ounce slices of meat

  (NOTE: A sandwich made of thin slices of meat is easier to eat than one made with a single thick slice of meat.)

- H. Spread meat salads to edges of bread
- I. Grind or chop meats for salads so that they have a fresh, distinct appearance
- J. Choose garnish to complement sandwich

  (NOTE: Consider texture, form, color, and flavor when selecting a garnish.)

- K. Use fresh, crisp garnishes

  (NOTE: Wilted lettuce or limp bacon may ruin a good sandwich.)

- L. Cut garnish to fit sandwich

  (NOTE: The garnish may also be served at the side of the sandwich.)

V. Work-improvement methods in preparing cold sandwiches (Transparency #1)

- A. Use a mobile cart to assemble all tools and ingredients
- B. Do all possible advance preparation of ingredients

  (NOTE: If possible, combine the spread and filling to eliminate unnecessary motions)

- C. Arrange all ingredients and equipment within the normal work range

VI. Ingredients of basic kinds of stock

- A. Brown stock--Browned beef
- B. White or light stock--Unbrowned meat or poultry

INFORMATION SHEET

VII. Steps in preparing stock (Clinical Job Sheet #4)

A. Brown meat for brown stock

(NOTE: The browner the meat, the richer the color of the stock.)

B. Place ingredients in cold water

(NOTE: Bones, meat, and vegetable scraps may be used.)

C. Bring ingredients to boiling point

D. Simmer three to six hours

(NOTE: Fish should be simmered only about one and one-half hours to keep it from turning cloudy. Simmering other ingredients longer than six hours can cause a bitter taste.)

E. Strain and cool broth

F. Skim hardened fat from cooled broth

(NOTE: If the broth is allowed to stand refrigerated for twenty-four hours, it develops more flavor; however, be aware that broth is highly perishable and should be frozen if kept longer.)

VIII. Steps in clarifying broth

A. Add egg whites and clean, crushed eggshells to cooled broth

B. Bring to a boil

C. Strain

IX. Basic types of soups

A. Clear

EXAMPLES: Bouillon, consomme, broth

B. Cream

EXAMPLES: Bisque, puree, chowder

X. Steps in thickening cream soups (Clinical Job Sheet #5)

A. Prepare roux

(NOTE: Roux is made by mixing equal parts of flour and fat, and then cooking this mixture over low heat about five minutes to remove the raw-starch taste.)

INFORMATION SHEET

B. Scald milk

C. Add roux to hot milk while stirring

(NOTE: Two tablespoons of roux will thicken 1 cup of liquid to the right consistency for cream soup.)

D. Stir with a wire whip while cooking

E. Add vegetables and/or meat

XI. Standards for quality soups

A. Rich, appealing flavor

B. Serving temperature of 130°F or above for hot soups

(NOTE: Soup should be 165°F to 180°F when served from the steam table.)

C. Serving temperature of 40°F to 45°F for cold soups

D. Free of grease

E. Suitable body

EXAMPLES: Thin, thick, chunky

XII. Types of seasonings (Class Assignment Sheet #1)

A. Spice

EXAMPLES: Paprika, nutmeg, cloves

B. Herb

EXAMPLES: Rosemary, thyme

C. Extract or flavoring

EXAMPLES: Vanilla, almond

D. Acid

EXAMPLES: Vinegar, lemon juice

E. Synthetic

EXAMPLES: Salt substitute, sugar substitute

INFORMATION SHEET

XIII. Seasoning techniques

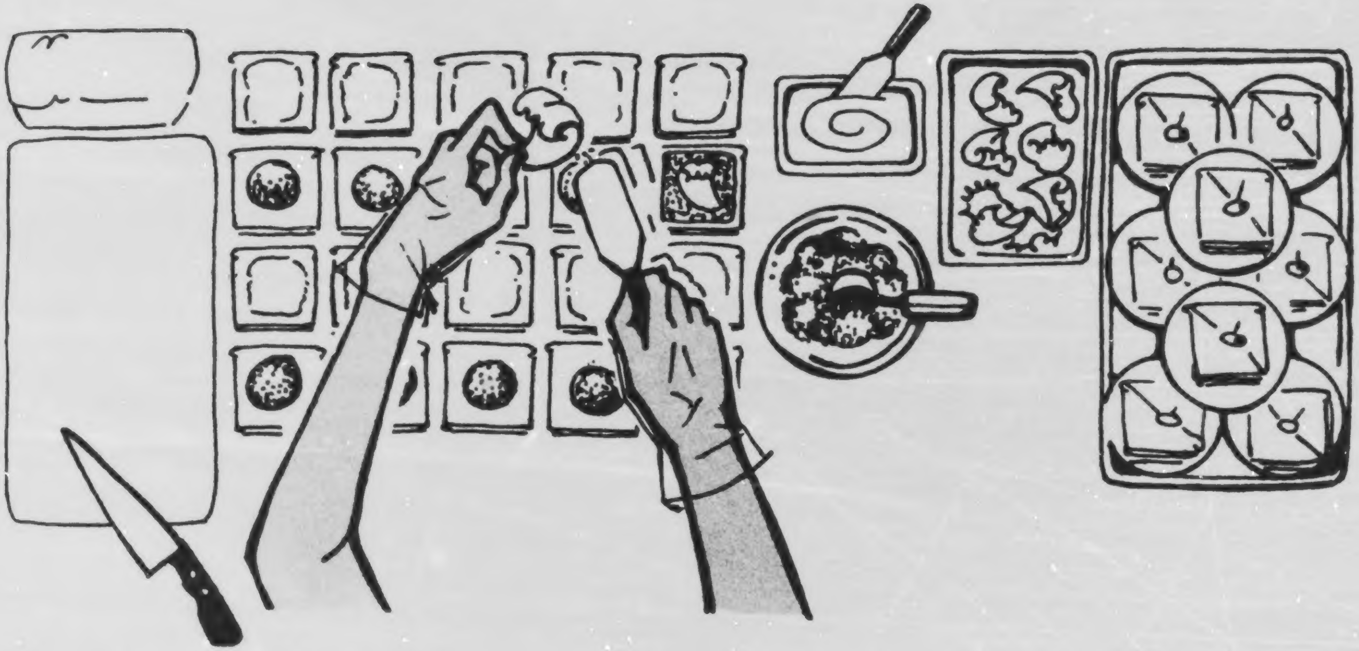
- A. Follow recipe
- B. Add 1/4 teaspoon per pound of meat or per pint of liquid
- C. Add whole spices at beginning of cooking time

  (NOTE: A sachet bag may be made by tying the spices in cheesecloth. This makes the spices easy to remove from the food being seasoned.)
- D. Add seeds, crushed spices, and flakes near end of cooking time
- E. Add spices to uncooked foods while combining ingredients

XIV. Guidelines for storing seasonings

- A. Keep cool
- B. Keep dry
- C. Keep tightly covered

Sandwich Production



Used with permission of Bennett Publishing Company.

TM #1

FPW - 499-C

FPW - 501-C

PREPARATION OF SANDWICHES AND SOUPS, AND THE USE OF SEASONINGS
UNIT VIII

CLASS ASSIGNMENT SHEET #1--PREPARE A CHART OF SEASONINGS AND THEIR USES

NAME ______________________________ SCORE ______________

In order to become acquainted with the great variety of seasonings available, prepare a chart of seasonings and their uses. Use institutional magazines and recipes to learn how spices, flavorings, and herbs are used.

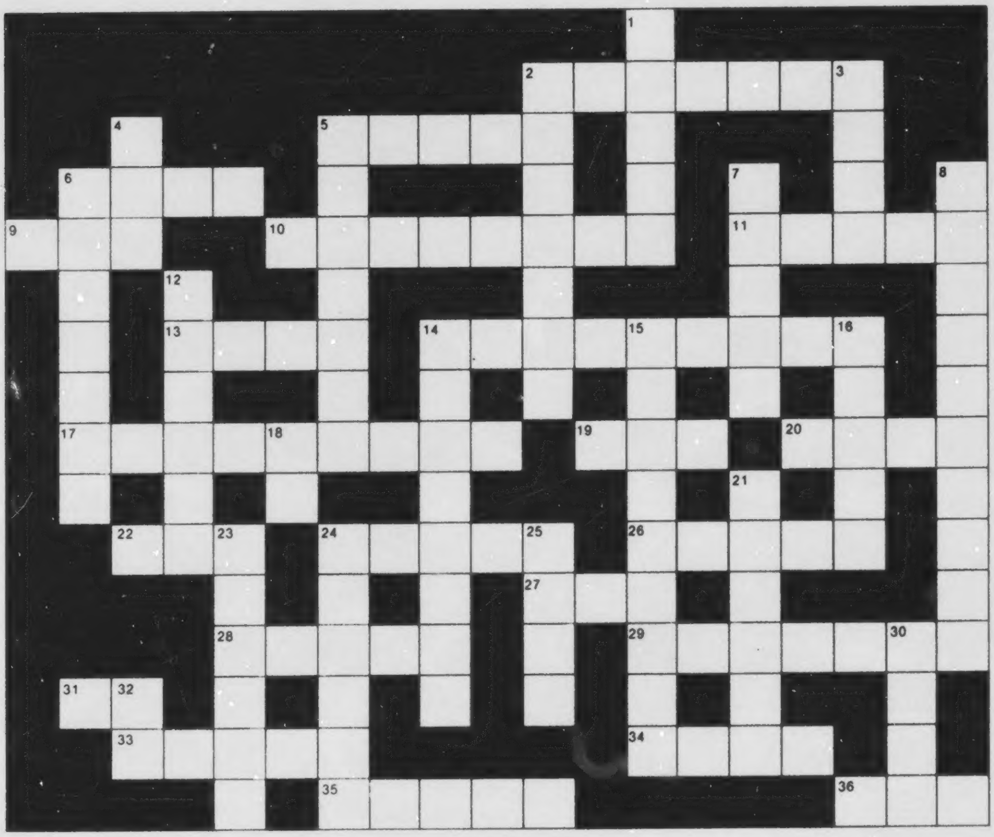
Seasoning	Uses	Comments

PREPARATION OF SANDWICHES AND SOUPS, AND THE USE OF SEASONINGS
UNIT VIII

CLASS ASSIGNMENT SHEET #2--COMPLETE A CROSSWORD PUZZLE

NAME ______________________________ SCORE ______________

Completing a crossword puzzle will help familiarize you with the terms and definitions associated with sandwiches, soups, and seasonings. Use your information sheet and the clues on the following page to complete the puzzle below.


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36

FPW - 505-C

CLASS ASSIGNMENT SHEET #2

ACROSS

2. i.e., lettuce, pickles, avocado, or bean sprouts
5. Type of soup; bouillon or broth
6. Type of soup served at 40°F to 45°F
9. Abbreviation for popular sandwich
10. Clarified beef broth
11. Fruit that goes well with a sandwich
13. Type of seasoning; vinegar or lemon juice
14. Soup made of thin white sauce and mashed or strained vegetables or meat
17. Additive that gives flavor to food but is not a spice or herb
19. _ _ _ and cheese sandwich
20. Mineral that prevents some anemias
22. Zest; zing; energy
24. Stock from which meat and vegetables have been removed
26. i.e., cinnamon, nutmeg, or clove
27. Abbreviation for an environmental group
28. Thin white sauce
29. Soups
31. Abbreviation for *milliliter*
33. Basic sandwich ingredient
34. Daily fare
35. Basis for many soups
36. Herb drink

DOWN

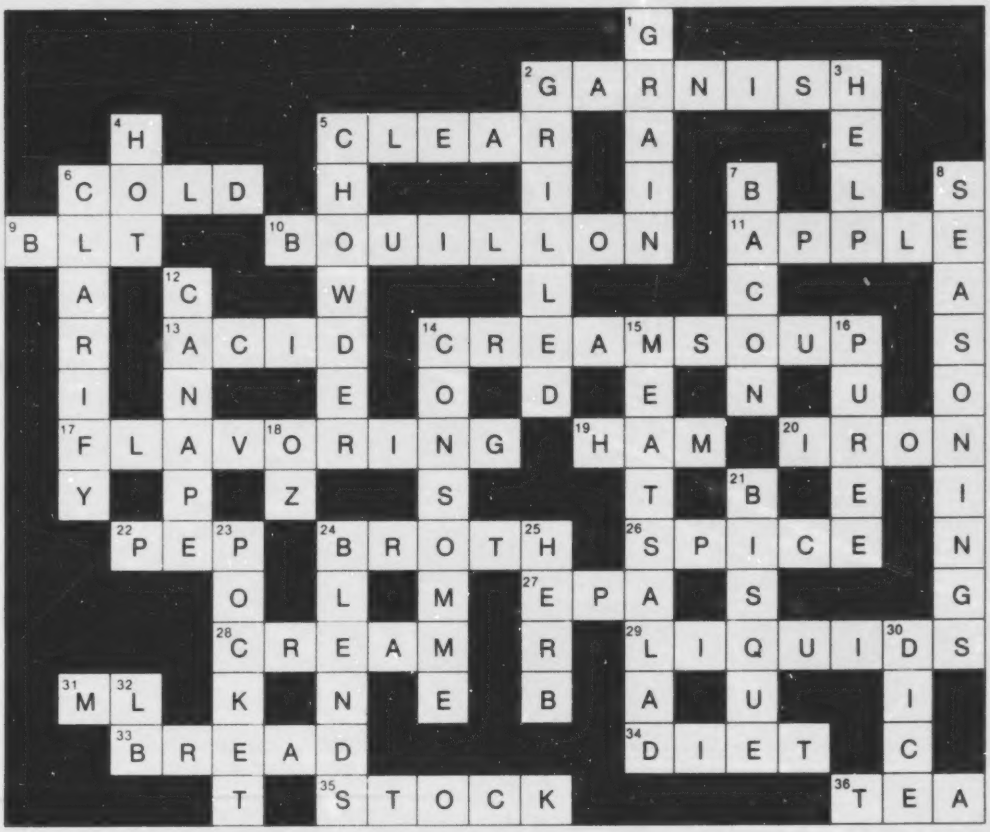
1. i.e., rye, wheat, or oats
2. Type of cheese sandwich
3. S.O.S.
4. Type of soup served at 130°F or above
5. Unstrained, thick, heavy soup made of vegetables or meat
6. To remove fine particles from broth
7. Ingredient in a BLT
8. Additives that enhance the flavors of food
12. Small, open-faced sandwich used for an appetizer
14. Light or white broth
15. Meat mixed with a salad dressing or mayonnaise (2 wds.)
16. Thick soup made of strained, cooked vegetables
18. Abbreviation for *ounce*
21. Mixture of chopped shellfish and broth in a thickened cream soup
23. Pita bread
24. Combinations of seasonings added together
25. i.e., basil, sage, mint, thyme
30. To cut into small pieces
32. Abbreviation for *pound*

PREPARATION OF SANDWICHES AND SOUPS, AND THE USE OF SEASONINGS
UNIT VIII

ANSWERS TO CLASS ASSIGNMENT SHEETS

Class Assignment Sheet #1--Evaluated to the satisfaction of the class instructor

Class Assignment Sheet #2


1 G
2 G A R N I S 3 H
4 H 5 C L E A R A E
6 C O L D H I I 7 B L 8 S
9 B L T 10 B O U I L L O N 11 A P P L E
A 12 C W L C A
R 13 A C I D 14 C R E A 15 M S O U 16 P S
I N E O D E N U O
17 F L A V 18 O R I N G 19 H A M 20 I R O N
Y P Z S T 21 B E I
22 P E 23 P 24 B R O T 25 H 26 S P I C E N
O L M 27 E P A S G
28 C R E A M R 29 L I Q U I 30 D S
31 M 32 L K N E B A U I
33 B R E A D 34 D I E T C
T 35 S T O C K 36 T E A

PREPARATION OF SANDWICHES AND SOUPS, AND THE USE OF SEASONINGS
UNIT VIII

CLINICAL JOB SHEET #1--PREPARE GRILLED CHEESE SANDWICHES

I. Equipment

- A. Grill
- B. Spatula
- C. Pastry brush
- D. French knife
- E. Cutting board
- F. Saucepan
- G. Range
- H. Parchment paper
- I. Two full-length steam table pans, 2 inches deep
- J. Dry measuring cup or scales
- K. Disposable gloves

II. Ingredients

(NOTE: These ingredients will yield fifty sandwiches.)

- A. Bread, 100 slices
- B. American cheese, 3 lb 2 oz or fifty 1-oz slices
- C. Margarine or butter, 1 lb or 2 c

III. Procedure

(NOTE: Set up work area as shown in Transparency #1.)

- A. Melt margarine or butter in saucepan over low heat
- B. Preheat grill
- C. Put on disposable gloves
- D. Lay out half of the bread in four rows
- E. Place one slice of cheese on each slice of bread in first and third rows
- F. Cover cheese with bread from the second and fourth rows

CLINICAL JOB SHEET #1

G. Brush tops of sandwiches with melted margarine

H. Pick up sandwiches, unspread-side up

I. Brush bottoms of sandwiches with margarine

J. Place sandwiches on hot grill

K. Turn with spatula after they have reached a golden brown color

L. Remove from grill when other side is golden brown

M. Use a sawing motion to cut sandwiches in half on cutting board

N. Place sandwiches in steam table pan

O. Layer sandwiches with parchment paper

P. Repeat production with other half of bread and ingredients

Q. Serve immediately

R. Return equipment and ingredients to their proper places, and clean work area

CLINICAL JOB SHEET #1

IV. Product evaluation

Product: Grilled cheese sandwiches						
Check the box that describes your rating of the product.						
	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring--____

2. Temperature of cookery--________________________________

3. Preparation--____

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments:____

PREPARATION OF SANDWICHES AND SOUPS, AND THE USE OF SEASONINGS
UNIT VIII

CLINICAL JOB SHEET #2--PREPARE TUNA SALAD SANDWICHES

I. Equipment

A. Stockpot

B. Metal basket

C. Can opener

D. Rubber spatula

E. Spoon

F. French knife

G. Cutting board

H. Metal spatula

I. Mixing bowl

J. Fork

K. Liquid measuring cup

L. Dry measuring cup or scales

M. Mixing bowl for electric mixer

N. Mixer and whip attachment

O. Two full-length steam table pans, 2 inches deep

P. Parchment paper

Q. Two clean, damp cloths

R. Number 16 dipper

S. Range

II. Ingredients

(NOTE: These ingredients will yield fifty sandwiches.)

A. Tuna, 4 lb or 8 c

B. Eggs, 6

C. Pickles, 8 oz or 1 1/2 c

CLINICAL JOB SHEET #2

D. Mayonnaise or salad dressing, 2 c

E. Bread, 100 slices

F. Lettuce, 2 or 3 heads

G. Margarine or butter, 1 lb or 2 c

H. Milk, 1/2 c

I. Water

III. Procedure

A. Allow eggs to reach room temperature

B. Place eggs in metal basket

C. Bring water in stockpot to a boil

D. Place basket of eggs in stockpot

E. Simmer for twelve minutes

F. Remove eggs from water

G. Immerse eggs in cold water

H. Roll egg between hands to loosen peel

I. Peel eggs, starting at large end

J. Wash lettuce

K. Tear lettuce leaves to fit sandwiches

L. Whip margarine or butter and milk in bowl of mixer

M. Open tuna cans

N. Flake tuna out of can into a mixing bowl with a fork

O. Chop eggs and pickles on a cutting board with a French knife

P. Add chopped eggs and pickles to tuna

Q. Scrape mayonnaise or salad dressing from measuring cup with a rubber spatula; add to tuna

R. Mix all ingredients with a spoon

CLININCAL JOB SHEET #2

S. Lay out fifty slices of bread in four rows

T. Use metal spatula to spread all the bread with whipped margarine

U. Place a dipper of tuna mixture on first and third rows of bread

V. Spread tuna mixture to edges of bread with metal spatula

W. Place lettuce on first and third rows of bread and tuna

X. Cover with bread from second and fourth rows, spread-side down

Y. Use French knife to cut sandwiches diagonally on cutting board

Z. Place in steam table pan

AA. Cover with parchment paper and clean, damp cloth

BB. Refrigerate until ready to use

CC. Repeat production process with other half of bread and ingredients

DD. Return equipment and ingredients to their proper places, and clean work area

CLINICAL JOB SHEET #2

IV. Product evaluation

Product: Tuna salad sandwiches

Check the box that describes your rating of the product.

Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance					
Texture/ Consistency					
Flavor					

What techniques should be improved?

1. Measuring--______________________________
2. Temperature of cookery--______________________________
3. Preparation--______________________________

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments:______________________________

PREPARATION OF SANDWICHES AND SOUPS, AND THE USE OF SEASONINGS
UNIT VIII

CLINICAL JOB SHEET #3--PREPARE A TRAY OF CANAPES

I. Equipment

A. Cutting board

B. French knife

C. Diamond, circle, cloverleaf cookie cutters

D. Pastry bag and tips

E. Metal spatula

F. Four full-length steam table pans, 2 inches deep

G. Plastic wrap

H. Two serving trays

II. Ingredients

(NOTE: These ingredients will yield approximately eighty-five canapes.)

A. Wheat bread, 20 slices

B. White bread, 20 slices

C. Rye bread, 20 slices

D. Banana bread, 15 slices

(NOTE: Any kind of fruit bread could be used.)

E. Raisin bread, 15 slices

F. Cream cheese and chopped chives, 3/4 c

G. Ham salad, 1 c

H. Pimento cheese, 1 c

I. Cream cheese and crushed pineapple, 3/4 c

J. Whipped margarine or butter, 1/2 c

K. Peanut butter, softened, 1 c

L. Green olives, 10 sliced

M. Dates, 10 pitted

CLINICAL JOB SHEET #3

N. Parsley, 1 bunch washed

O. Paprika, 1/4 c

P. Pecan halves, 15

Q. Pimento strips, 1/2 c

R. Coconut, 1/4 c shredded

S. Pineapple chunks, 5

T. Maraschino cherries, 5

U. Chives, 1/4 c chopped

III. Procedure

A. Refrigerate all bread twenty-four hours

B. Cut crust from white, wheat, and rye breads

C. Place bread on cutting board, and cut into different shapes

EXAMPLES: Triangles, squares, cookie cutter shapes

D. Spread one-third of the different bread shapes with whipped margarine or butter

E. Spread these with ham salad

F. Garnish with sliced olives, pimento strips, sprigs of parsley, or paprika

G. Spread another third of the bread shapes with peanut butter, or squeeze peanut butter through pastry tip to decorate bread

H. Garnish bread shapes that were spread with peanut butter with pecan halves, dates, or shredded coconut

I. Spread the last third of the bread shapes with pimento cheese, or squeeze cheese through a pastry tip to decorate bread

J. Cover half the bread shapes spread with pimento cheese with another matching bread shape

(NOTE: White and wheat bread may be put together to add interest.)

CLINICAL JOB SHEET #3

K. Garnish other half of pimento spread shapes with sliced olives, sprigs of parsley, or pimento strips

L. Place in steam table pans

M. Cover with plastic wrap

(NOTE: Be sure to cover the pans so that they are airtight.)

N. Place in refrigerator until ready to use

O. Slice banana and raisin breads

P. Spread half of banana and raisin bread with cream cheese and chive mixture

Q. Garnish with sliced olives, chopped chives, or paprika

R. Spread other half of banana and raisin bread with cream cheese and crushed pineapple mixture, or squeeze mixture through a pastry tip to decorate bread

S. Garnish with maraschino cherry halves, pineapple chunks, or pecan halves

T. Place in steam table pans

U. Cover pans with plastic wrap

V. Refrigerate until ready to use

W. Return equipment and ingredients to their proper places, and clean work area

X. Arrange canapes on serving trays just before serving

CLINICAL JOB SHEET #3

IV. Product evaluation

Product: Canapes

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring--____
2. Temperature of cookery--________________________________
3. Preparation--____

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments:____

PREPARATION OF SANDWICHES AND SOUPS, AND THE USE OF SEASONINGS
UNIT VIII

CLINICAL JOB SHEET #4--PREPARE VEGETABLE BEEF SOUP

I. Equipment

   A. Ten-gallon stockpot

   B. Cutting board

   C. French knife

   D. Scale or dry measures

   E. Vegetable parer

   F. Measuring spoons

   G. Skimmer

   H. One-gallon liquid measure

   I. Potholders

   J. Cloths

   K. Range

II. Ingredients

(NOTE: These ingredients will yield 3 gallons or forty-eight 1-cup portions.)

   A. Beef shank with meat, 15 lb

   B. Water, 4 gal

   C. Bay leaves, 2

   D. Salt, 3 T

   E. Carrots, 1 lb 8 oz or 4 1/2 c cubed

   F. Celery, 1 lb 8 oz or 1 qt + 2 c chopped

   G. Onion, 1 lb or 2 to 3 c chopped

   H. Potatoes, 2 lb or 1 qt cubed

   I. Salt, 1/4 c

   J. Pepper, 1 t

CLINICAL JOB SHEET #4

III. Procedure

A. Add water and seasonings to beef shank in stockpot

B. Bring to boiling point

C. Simmer three to four hours

D. Remove bones and meat

E. Chop meat on cutting board

F. Strain stock through strainer

G. Cool broth in refrigerator

H. Pare and cube carrots

I. Weigh or measure carrots

J. Pare and chop celery

K. Weigh or measure celery

L. Pare and chop onions

M. Weigh or measure onions

N. Pare and cube potatoes

O. Weigh or measure potatoes

P. Skim fat from broth

Q. Add vegetables to meat broth

R. Cover

S. Simmer for one hour

T. Replace water if necessary

U. Add salt, pepper, and meat

V. Serve

W. Return equipment and ingredients to their proper places, and clean work area

CLINICAL JOB SHEET #4

IV. Product evaluation

Product: Vegetable beef soup

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring--______________________________

____

2. Temperature of cookery--______________________________

____

3. Preparation--______________________________

____

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments: ______________________________

____

____

____

PREPARATION OF SANDWICHES AND SOUPS, AND THE USE OF SEASONINGS
UNIT VIII

CLINICAL JOB SHEET #5--PREPARE CREAM OF POTATO SOUP

I. Equipment

   A. Two ten-gallon stockpots
   B. Saucepan
   C. Spoon
   D. Vegetable parer
   E. Cutting board
   F. French knife
   G. Liquid measures
   H. Dry measures or scales
   I. Measuring spoons
   J. Potholders
   K. Range
   L. Wire whip

II. Ingredients

   (NOTE: These ingredients will yield 3 gallons or forty-eight 1-cup portions.)

   A. Potatoes, 12 lb or 1 1/2 gal cubed
   B. Onions, 6 oz or 1 c chopped
   C. Celery, 8 oz or 2 c diced
   D. Water
   E. Butter or margarine, 12 oz or 1 1/2 c
   F. Flour, 6 oz or 1 1/2 c
   G. Salt, 3 T
   H. White pepper, 1/2 t
   I. Milk, 2 1/4 gal

CLINICAL JOB SHEET #5

III. Procedure

- A. Pare and cube potatoes
- B. Weigh or measure potatoes
- C. Pare and chop onions
- D. Weigh or measure onions
- E. Pare and dice celery
- F. Weigh or measure celery
- G. Cook potatoes, onions, and celery in water in stockpot until tender
- H. Melt butter or margarine in saucepan
- I. Stir flour into melted fat
- J. Cook roux mixture about five minutes
- K. Scald milk in other stockpot
- L. Add roux, stirring constantly with wire whip until smooth
- M. Cook cream sauce over low heat until thickened

  (NOTE: Cook over low heat so that sauce will not have a raw, starchy taste.)

- N. Drain water from vegetables
- O. Add potatoes, onions, and celery to cream sauce mixture
- P. Continue simmering and stirring occasionally until soup flavors are blended
- Q. Serve
- R. Return equipment and ingredients to their proper places, and clean work area

CLINICAL JOB SHEET #5

IV. Product evaluation

Product: Cream of potato soup

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring--______________________________

____

2. Temperature of cookery--______________________________

____

3. Preparation--______________________________

____

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments:______________________________

____

____

____

FPW - 529-C

PREPARATION OF SANDWICHES AND SOUPS, AND THE USE OF SEASONINGS
UNIT VIII

TEST

NAME ______________________________ SCORE ______________

1. Match to their correct definitions terms associated with sandwich and soup preparation and the use of seasonings. Write the correct numbers in the blanks.

______ a. Combination of seasonings added together

______ b. Liquid or semiliquid food

______ c. Small, open-faced sandwich used for an appetizer

______ d. Unstrained, thick, heavy soup made of vegetables or meat

______ e. Thin white sauce and mashed or strained vegetables or meat

______ f. Meat mixed with a salad dressing or mayonnaise

______ g. Stock from which meat and vegetables have been removed

______ h. Clarified beef broth

______ i. Thick soup made of strained, cooked vegetables

______ j. Vegetable substance used to flavor food; strong in flavor and odor

______ k. Basis for many soups; made by simmering meat, poultry, fish, and/or vegetables in water to extract their flavors

______ l. To remove from broth particles that are too fine to be strained out

______ m. Light or white broth

______ n. Mixture of chopped shellfish and broth in a thickened cream soup

______ o. Additive that enhances flavor of food

______ p. Parts of a plant used to flavor food; delicate in flavor

______ q. Additive that gives flavor to food but is not a spice or herb

1. Blend
2. Flavoring
3. Herb
4. Spice
5. Seasoning
6. Chowder
7. Puree
8. Bisque
9. Cream soup
10. Consomme
11. Bouillon
12. Clarify
13. Broth
14. Stock
15. Soup
16. Meat salad
17. Canape

TEST

2. Distinguish among classifications of hot and cold sandwiches. Write an "H" in the blanks before hot sandwiches, and "C" before cold sandwiches.

_____a. Broiled

_____b. Regular

_____c. Club

_____d. Deep-fried

_____e. Baked

_____f. Rolled or pinwheel

_____g. Grilled

_____h. Open-faced with gravy

_____i. Speciality

_____j. Canape

_____k. Served on a bun

3. List sandwich ingredients.

a. ____________________

b. ____________________

c. ____________________

d. ____________________

4. List eight suggestions for preparing sandwiches.

a. ____________________

b. ____________________

c. ____________________

d. ____________________

e. ____________________

f. ____________________

g. ____________________

h. ____________________

TEST

5. Select from the following list work-improvement methods in preparing cold sandwiches. Write an "X" in the blank before each correct answer.

______a. Use two cabinets to prepare sandwiches

______b. Do all possible advance preparation of ingredients

______c. Freeze bread to make it easier to cut

______d. Use a mobile cart to assemble all tools and ingredients

______e. Arrange all ingredients and equipment within the normal work range

6. Match basic kinds of stock to their correct ingredients. Write the correct numbers in the blanks.

______a. Brown stock

______b. White or light stock

1. Unbrowned meat or poultry
2. Browned beef

7. Arrange in order steps in preparing stock. Write a "1" before the first step, a "2" before the second step, and so on.

______a. Skim hardened fat from cooled broth

______b. Place ingredients in cold water

______c. Strain and cool broth

______d. Bring ingredients to boiling point

______e. Brown meat for brown stock

______f. Simmer three to six hours

8. Arrange in order steps in clarifying broth. Write a "1" before the first step, a "2" before the second step, and so on.

______a. Bring to a boil

______b. Strain

______c. Add egg whites and clean, crushed eggshells to cooled broth

9. List basic types of soups.

a. ____

b. ____

TEST

10. Arrange in order steps in thickening cream soups. Write a "1" before the first step, a "2" before the second step, and so on.

______ a. Stir with a wire whip while cooking

______ b. Scald milk

______ c. Prepare roux

______ d. Add vegetables and/or meat

______ e. Add roux to hot milk while stirring

11. Select from the following list standards for quality soups. Write an "X" in the blank before each correct answer.

______ a. Bland, weak flavor

______ b. Serving temperature of 40°F to 45°F for cold soups

______ c. Suitable body

______ d. Enough grease to add flavor

______ e. Serving temperature of 130°F or above for hot soups

______ f. Pale, bland color

12. List three types of seasonings.

a. ____

b. ____

c. ____

13. Select from the following list seasoning techniques. Write an "X" in the blank before each correct answer.

______ a. Use your own judgment

______ b. Add seeds, crushed spices, and flakes near end of cooking time

______ c. Add 1/4 teaspoon per pound of meat or per pint of liquid

______ d. Soak all seasonings before use

______ e. Add whole spices at end of cooking period

______ f. Add spices to uncooked foods while combining ingredients

TEST

14. Select from the following list guidelines for storing seasonings. Write an "X" in the blank before each correct answer.

_____a. Keep over the range in a spice rack

_____b. Keep cool

_____c. Keep dry

_____d. Keep in well-lighted area

_____e. Keep tightly covered

(NOTE: Test questions 15 and 16 list the assignment and job sheets. They are an important part of this test. If they have not been completed, check with your instructor.)

15. Prepare a chart of seasonings and their uses.

16. Demonstrate the ability to

a. Prepare grilled cheese sandwiches.

b. Prepare tuna salad sandwiches.

c. Prepare a tray of canapes.

d. Prepare vegetable beef soup.

e. Prepare cream of potato soup.

PREPARATION OF SANDWICHES AND SOUPS, AND THE USE OF SEASONINGS
UNIT VIII

ANSWERS TO TEST

(NOTE: It may be helpful to use your blank test to make a test key. The points designated in parentheses are intended to be guidelines and should be adapted to meet the needs of each teaching/learning situation. The point total for the entire test is 490. The point total for questions 1-14 is 165; the point total for questions 15 and 16 is 325.)

1. (34 points)
    a. 1
    b. 15
    c. 17
    d. 6
    e. 9
    f. 16
    g. 13
    h. 11
    i. 7
    j. 4
    k. 14
    l. 12
    m. 10
    n. 8
    o. 5
    p. 3
    q. 2

2. (22 points)
    a. H
    b. C
    c. C
    d. H
    e. H
    f. C
    g. H
    h. H
    i. C
    j. C
    k. H

3. (4 points)
    a. Bread
    b. Spread
    c. Filling
    d. Garnish

4. (16 points)

    Answer should include any eight of the following

    a. Slice bread 1/4 inch to 1/2 inch thick
    b. Use day-old bread

ANSWERS TO TEST

c. Use whipped butter or margarine

d. Spread butter or margarine to edges of bread

e. Be careful not to mash bread

f. Cut meat to fit bread

g. Use uniform 1-ounce to 2-ounce slices of meat

h. Spread meat salads to edges of bread

i. Grind or chop meat for salads so that they have a fresh, distinct appearance

j. Choose garnish to complement sandwich

k. Use fresh, crisp garnishes

l. Cut garnish to fit sandwich

5. (10 points)

b, d, e

6. (4 points)

a. 2

b. 1

7. (12 points)

a. 6

b. 2

c. 5

d. 3

e. 1

f. 4

8. (9 points)

a. 2

b. 3

c. 1

9. (2 points)

a. Clear

b. Cream

ANSWERS TO TEST

10. (15 points)

    a. 4

    b. 2

    c. 1

    d. 5

    e. 3

11. (12 points)

    b, c, e

12. (3 points)

    Answer should include any three of the following

    a. Spice

    b. Herb

    c. Extract or flavoring

    d. Acid

    e. Synthetic

13. (12 points)

    b, c, f

14. (10 points)

    b, c, e

15. Evaluated to the satisfaction of the class instructor (25 points)

16. Performance skills evaluated to the satisfaction of the clinical instructor

    a. (50 points)

    b. (50 points)

    c. (50 points)

    d. (75 points)

    e. (75 points)

PRODUCTION SCHEDULING AND SERVICE OF FOOD
UNIT IX

UNIT OBJECTIVE

After completing this unit, the student should be able to use a production schedule and recognize its importance in the appetizing service of food. This knowledge will be shown by completing the assignment sheets and unit test with a minimum score of 85 percent.

SPECIFIC OBJECTIVES

After completing this unit, the student should be able to

1. Match to their correct definitions terms associated with production scheduling and service of food.
2. Select from a list reasons for production scheduling.
3. Select from a list benefits of production scheduling for employees.
4. Select from a list factors that affect production scheduling.
5. Differentiate between the effects on production scheduling of conventional and ready-prepared food production systems.
6. List methods of production scheduling.
7. Select from a list basic elements of a production work sheet.
8. State guidelines for ensuring efficiency in the food production unit.
9. Select from a list characteristics of well-planned and well-prepared meals.
10. State uses of garnishes.
11. Analyze food production scheduling in your food production unit.
12. Assemble a file of garnishing ideas.

PRODUCTION SCHEDULING AND SERVICE OF FOOD
UNIT IX

SUGGESTED ACTIVITIES

I. Suggested activities

   A. Provide students with objective sheet.

   B. Provide students with information and assignment sheets.

   C. Discuss unit and specific objectives.

   D. Discuss information and assignment sheets.

   E. Develop appropriate learning activities for special needs students.

   F. Ask students to bring to class a copy of the food production schedule used in their departments. Discuss.

   G. Arrange a field trip to a large commercial kitchen and observe how production schedules are used.

   EXAMPLES: Cafeteria, airline flight kitchen, large hotel kitchen

   H. Bring pictures of garnishes that are given as examples in Section X of the Information Sheet. Also, find pictures of foods that need garnishes and let the class suggest appropriate garnishes.

   I. Ask each student to demonstrate for the class the preparation of two garnishes.

   J. Give test.

   K. Reteach if necessary.

II. Instructional materials

   A. Objective sheet

   B. Suggested activities

   C. Information sheet

   D. Clinical assignment sheets

      1. Clinical Assignment Sheet #1 — Analyze Food Production Scheduling in Your Food Production Unit

      2. Clinical Assignment Sheet #2 — Assemble a File of Garnishing Ideas

   E. Answers to clinical assignment sheets

   F. Test

   G. Answers to test

SUGGESTED ACTIVITIES

III. Unit references

A. Hospital Research and Educational Trust. *Being a Food Service Worker,* 8th ed. Bowie, Maryland: Robert J. Brady Co., 1974.

B. Knoll, Anne P. *Food Service Management-A Human Relations Approach.* New York: Gregg Division McGraw-Hill Book Co., 1976.

C. Kotschevar, Lendal H. *Standards, Principles, and Techniques in Quantity Food Production,* 3rd ed. Boston: Cahmers Books, 1974.

D. Mahaffey, Mary J., et al. *Food Service Manual for Healthcare Institutions,* 4th ed. Chicago: American Hospital Association, 1981.

E. Ray, Mary F., and Evelyn J. Lewis. *Exploring Professional Cooking.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1976.

F. West, B. B., et al. *Food Service in Institutions,* 5th ed. New York: John Wiley and Sons, Inc., 1977.

PRODUCTION SCHEDULING AND SERVICE OF FOOD
UNIT IX

INFORMATION SHEET

I. Terms and definitions

  A. Production scheduling — Planning food preparation time to increase efficiency and improve food quality

  B. Production schedule — Tool used to aid in organizing food production

  C. Conventional food production system — Traditional method in which menu items are prepared from basic ingredients on the same day that they will be served

  D. Ready-prepared food production system — Method in which menu items are always prepared several days in advance of serving and held in a refrigerator or freezer

  E. Convenience foods — Items that have been partially or completely prepared at time of purchase

  F. Garnish — An edible food used to decorate another

II. Reasons for production scheduling

  A. Improving food quality

  (NOTE: With effective production scheduling, food does not have to be held as long; therefore, appearance, flavor, and freshness are improved.)

  B. Aiding in temperature maintenance

  C. Reducing risk of bacterial growth

  D. Utilizing employees' time effectively

  E. Assuring that preparation is completed on time

  F. Controlling overproduction

III. Benefits of production scheduling for employees

  A. Designates responsibility

  B. Dispels panic and worry

  C. Aids in developing a sense of timing

INFORMATION SHEET

IV. Factors that affect production scheduling

  A. Skill and experience of employees

  B. Menu

  C. Equipment available

  EXAMPLE: Peeling potatoes with a machine rather than by hand

  D. Type of food production system

  EXAMPLES: Conventional, ready-prepared

  E. Number of employees

  F. Quantity of food prepared

V. Effects on production scheduling of conventional and ready-prepared food production systems

  A. Conventional

    1. Food is prepared from primary ingredients

    2. More labor is required

    3. Same-day preparation is required

    (NOTE: Although some preparation may be done earlier, the bulk of preparation is performed the same day the food is served.)

    4. Twelve- to fifteen-hour production days are required

    5. Work loads fluctuate during the day

  B. Ready-prepared

    1. More convenience foods are purchased

    2. Less labor is required

    3. Foods are prepared for future use

    (NOTE: Food is usually prepared twenty-four hours in advance for a cook/chill system, and forty-eight hours in advance for a cook/freeze system.)

INFORMATION SHEET

4. Work loads are equalized

   (NOTE: In ready-prepared systems there is no rush prior to mealtimes, because preparation is for a day or two in advance. Production employees often work an eight-hour shift on weekdays only.)

VI. Methods of production scheduling

   A. Batch cooking

   B. Food production work sheets

VII. Basic elements of a production work sheet (Clinical Assignment Sheet #1)

   A. Item to be prepared

   B. Amount to be prepared

   C. Leftover amount

   D. Shortage or run-out time

   E. Unit assigned to prepare various items

   EXAMPLES:

Station Bake Station
Biscuits

Workers Bill Ray
Ev McDonald
Ray Campbell

Manager Francis Brown

Number of Servings Prepared	Menu Item	Expected Yield	Actual Yield	Number Served	Amount Left Over
25	Biscuits (2/serving)	48	44	30	14
25	Baked Custard	25	25	25	0

INFORMATION SHEET

Menu Item	Quantity to Prepare	Actual Yield	Person Responsible	Recipe Number	Portion Size	Time Schedule	Leftover Amount	Shortage	Substitution

INFORMATION SHEET

VIII. Guidelines for ensuring efficiency in the food production unit

- A. Check food production work sheets two to three days in advance
- B. Read through standardized recipes for each item
- C. Identify factors that could cause delays

  EXAMPLES: Unfamiliarity with preparation procedure, equipment not working

- D. Estimate time required to complete each preparation step

  EXAMPLE: Allow time for thawing food in refrigerator or for preheating oven.

IX. Characteristics of well-planned and well-prepared meals

- A. Freshly prepared foods
- B. Retention of original color
- C. Retention of essential nutrients
- D. Good flavor and aroma
- E. Good-quality ingredients
- F. Maintenance of proper temperature
- G. Attractive combinations of shapes
- H. Attractive garnishes
- I. Contrasting shapes and textures

X. Uses of garnishes (Clinical Assignment Sheet #2)

- A. To add bulk

  EXAMPLES: Whole strawberries or orange wedges with eggs and bacon, grapes with a slice of quiche

- B. To provide a contrast in texture

  EXAMPLES: Bacon bits on a poached egg, nuts on ice cream, toasted almonds on baked fish, coconut on fruit

INFORMATION SHEET

C. To add color

EXAMPLES: Pimento strip on broccoli, paprika on potatoes, maraschino cherry on grapefruit half

D. To complement a dish

EXAMPLES: Jalapeno pepper slices on nachos, lemon wedge on fish, shredded cheese on a taco

FPW - 549-C

PRODUCTION SCHEDULING AND SERVICE OF FOOD
UNIT IX

CLINICAL ASSIGNMENT SHEET #1 — ANALYZE FOOD PRODUCTION SCHEDULING IN YOUR FOOD PRODUCTION UNIT

NAME ______________________________ SCORE ____________

Most dietary departments, whether large or small, use some type of food production schedule as a communication tool between management and the food production employee.

PART I

Attach a copy of the food production schedule used in your department to this assignment sheet. If your department does not use a production schedule, use the space below to describe how the information usually contained in a production schedule is communicated.

____

____

____

____

____

____

____

PART II

Answer the questions below to evaluate the use of production work sheets in your department.

A. How far in advance are food production work sheets made?

____

B. How far in advance are food production work sheets given to the individual production units?

____

C. Are the food production work sheets used by the cooks? ______________ by the management? ______________

CLINICAL ASSIGNMENT SHEET #1

D. How would you improve the production work sheets to make them more useful?

____

____

____

____

____

E. Are the food production work sheets used as outlined in this unit?____________

If not, how are they used? __________________________________

____

____

____

____

____

PRODUCTION SCHEDULING AND SERVICE OF FOOD
UNIT IX

CLINICAL ASSIGNMENT SHEET #2 — ASSEMBLE A FILE OF GARNISHING IDEAS

NAME ______________________________ SCORE ______________

Quality food service depends heavily on presenting the food in an appetizing, attractive manner. The use of garnishes can make the difference between an appealing meal and a "ho-hum" plate of food. Prepare a file of garnishing ideas for future reference. Use magazines and advertisements for pictures. Your file may be organized according to the uses outlined in the Information Sheet, Section X, or by categories such as "Entrees," "Vegetables," or "Desserts."

PRODUCTION SCHEDULING AND SERVICE OF FOOD
UNIT IX

ANSWERS TO CLINICAL ASSIGNMENT SHEETS

Clinical Assignment Sheet #1 — Evaluated to the satisfaction of the clinical instructor

Clinical Assignment Sheet #2 — Evaluated to the satisfaction of the clinical instructor

PRODUCTION SCHEDULING AND SERVICE OF FOOD
UNIT IX

TEST

NAME ____ SCORE ________________

1. Match to their correct definitions terms associated with production scheduling and service of food. Write the correct numbers in the blanks.

______a. Method in which menu items are always prepared several days in advance of serving and held in a refrigerator or freezer

______b. Items that have been partially or completely prepared at time of purchase

______c. Tool used to aid in organizing food production

______d. Planning food preparation time to increase efficiency and improve food quality

______e. An edible food used to decorate another

______f. Traditional method in which menu items are prepared from basic ingredients on the same day that they will be served

1. Production scheduling
2. Production schedule
3. Conventional food production system
4. Ready-prepared food production system
5. Convenience foods
6. Garnish

2. Select from the following list reasons for production scheduling. Write an "X" in the blank before each correct answer.

______a. Increasing overproduction

______b. Aiding in temperature maintenance

______c. Reducing risk of bacterial growth

______d. Allowing employees to determine quantity for preparation

______e. Utilizing employees' time effectively

______f. Organizing food service supervisor's work

______g. Assuring that preparation is completed on time

______h. Improving food quality

TEST

3. Select from the following list benefits of production scheduling for employees. Write an "X" in the blank before each correct answer.

_____a. Encourages decision making by cooks

_____b. Allows work to be completed ahead of schedule

_____c. Dispels panic and worry

_____d. Aids in developing a sense of timing

_____e. Designates responsibility

4. Select from the following list factors that affect production scheduling. Write an "X" in the blank before each correct answer.

_____a. Skill and experience of employees

_____b. Type of food production system

_____c. Sex and age of employees

_____d. Vendors' calling times

_____e. Number of employees

_____f. Menu

_____g. Quantity of food prepared

_____h. Equipment available

5. Differentiate between effects on production scheduling of conventional and ready-prepared food production systems. Write a "C" in the blanks before conventional, and an "RP" in the blanks before ready-prepared.

_____a. More labor is required

_____b. More convenience foods are purchased

_____c. Work loads are equalized

_____d. Same-day preparation is required

_____e. Twelve- to fifteen-hour production days are required

_____f. Foods are prepared for future use

_____g. Food is prepared from primary ingredients

TEST

______h. Less labor is required

______i. Work loads fluctuate during the day

6. List methods of production scheduling.

a. ______________________________

b. ______________________________

7. Select from the following list basic elements of a production work sheet. Write an "X" in the blank before each correct answer.

______a. Unit assigned to prepare various items

______b. Cost per serving

______c. Leftover amount

______d. Name of patient

______e. Item to be prepared

______f. Shortage or run-out time

______g. Amount to be prepared

8. State three guidelines for ensuring efficiency in the food production unit.

a. ______________________________

b. ______________________________

c. ______________________________

9. Select from the following list characteristics of well-planned and well-prepared meals. Write an "X" in the blank before each correct answer.

______a. Well-done vegetables

______b. Retention of original color

______c. Attractive garnishes

______d. Uniformity of color

______e. Good-quality ingredients

______f. Contrasting shapes and textures

TEST

______g. Good flavor and aroma

______h. Uniformity of flavor

______i. Attractive combinations of shapes

______j. Maintenance of proper temperature

______k. Retention of essential nutrients

______l. Freshly prepared foods

10. State three uses of garnishes.

    a. ____

    b. ____

    c. ____

(NOTE: Test questions 11 and 12 list the assignment sheets. They are an important part of this test. If they have not been completed, check with your instructor.)

11. **Analyze food production scheduling in your food production unit.**

12. Assemble a file of garnishing ideas.

PRODUCTION SCHEDULING AND SERVICE OF FOOD
UNIT IX

ANSWERS TO TEST

(NOTE: It may be helpful to use your blank test to make a test key. The points designated in parentheses are intended to be guidelines and should be adapted to meet the needs of each teaching/learning situation. The point total for the entire test is 220. The point total for questions 1-10 is 145; the point total for questions 11 and 12 is 75.)

1. (12 points)

a.	4	d.	1
b.	5	e.	6
c.	2	f.	3

2. (16 points)

   b, c, e, g, h

3. (10 points)

   c, d, e

4. (16 points)

   a, b, e, f, g, h

5. (27 points)

a.	C	f.	RP
b.	RP	g.	C
c.	RP	h.	RP
d.	C	i.	C
e.	C		

6. (2 points)

   a. Batch cooking

   b. Food production work sheets

ANSWERS TO TEST

7. (14 points)

   a, c, e, f, g

8. (15 points)

   Answer should include any three of the following

   a. Check food production work sheets two to three days in advance

   b. Read through standardized recipes for each item

   c. Identify factors that could cause delays

   d. Estimate time required to complete each preparation step

9. (24 points)

   b, c, e, f, g, i, j, k, l

10. (9 points)

    Answer should include any three of the following

    a. To add bulk

    b. To provide a contrast in texture

    c. To add color

    d. To complement a dish

11. Evaluated to the satisfaction of the clinical instructor (50 points)

12. Evaluated to the satisfaction of the clinical instructor (25 points)

COST CONTROL IN FOOD PRODUCTION
UNIT X

UNIT OBJECTIVE

After completing this unit, the student should be able to apply the principles of food cost control in each area of food production. This knowledge will be shown by completing assignment sheets and unit test with a minimum score of 85 percent.

SPECIFIC OBJECTIVES

After completing this unit, the student should be able to

1. Match terms associated with cost control to their correct definitions.
2. List factors involved in food cost control.
3. Arrange in order steps in precosting menus.
4. Arrange in order steps for intelligent food purchasing.
5. Select from a list steps to maintain good cost control in receiving food.
6. Select from a list steps to maintain good cost control in storing food.
7. Select from a list food production practices to maintain good cost control.
8. List records that should be maintained accurately by the supervisor.
9. Precost a standardized recipe.
10. Precost menu items.
11. Precost one day of the menu cycle.
12. Compare cost per serving of different brands of a menu item.
13. Check a grocery order against the invoice.
14. Record information on a food production sheet.
15. Record meals served for a five-day period.

PREPARATION OF CEREALS, BREADS, AND DESSERTS
UNIT VI

CLINICAL JOB SHEET #13 — PREPARE CREAMY FROSTING

I. Equipment

- A. Mixer with whip attachment
- B. Mixing bowl
- C. Scales or dry measures
- D. Liquid measures
- E. Rubber spatula

II. Ingredients

(NOTE: These ingredients will yield approximately 1½ quarts of frosting.)

- A. Butter or margarine, 12 oz or 1½ c
- B. Milk, ½ c
- C. Vanilla, 1 T
- D. Powdered sugar, 2 lb 8 oz or 7½ c
- E. Salt, 2 t

III. Procedure

- A. Cream butter or margarine in mixing bowl one minute or until smooth
- B. Add salt to powdered sugar
- C. Add milk and powdered sugar alternately to butter or margarine

  (NOTE: Always start mixer at the slowest speed, and then increase speed as ingredients are mixed.)
- D. Whip until mixture is smooth and creamy
- E. Return equipment and supplies to their proper places and clean work area

CLINICAL JOB SHEET #13

IV. Product evaluation

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring — ______________________________
2. Temperature of cookery — ______________________________
3. Preparation — ______________________________

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments: ______________________________

PREPARATION OF CEREALS, BREADS, AND DESSERTS
UNIT VI

CLINICAL JOB SHEET #14 — PREPARE CHOCOLATE CHIP COOKIES

Equipment

A. Scales or dry measures

B. Dipper, #24

C. Sheet pans

D. Mixer

E. Spatula

F. Oven

G. Cooling rack

II. Ingredients

(NOTE: These ingredients will yield 15 dozen cookies.)

A. Brown sugar, 1 lb 8 oz or 3 c

B. Granulated sugar, 1 lb 8 oz or 3 c

C. Salt, 2¼ t

D. Butter or shortening, 1 lb 8 oz or 3¼ c

E. Water, 1 T

F. Vanilla, 2 t

G. Eggs, 8 oz or 4

H. Pastry flour, 2 lb 4 oz or 10¾ c

I. Baking soda, 1 T

J. Chocolate chips, 1 lb or 2¾ c

K. Walnuts, 8 oz or 2 c, chopped

CLINICAL JOB SHEET #14

III. Procedure

- A. Place sugars, salt, and butter or shortening in mixer bowl
- B. Cream together
- C. Add water, vanilla, and eggs
- D. Mix for two minutes on low
- E. Add flour, baking soda, chips, and walnuts
- F. Mix on low for two minutes
- G. Preheat oven to 350°F
- H. Place on baking sheets using dipper
- I. Bake at 350°F for twelve to fifteen minutes
- J. Cool on cooling rack after removing from oven
- K. Return equipment and supplies to their proper places and clean work area

R

FPW - 405-C

CLINICAL JOB SHEET #14

IV. Product evaluation

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring — ______________________________

____

2. Temperature of cookery — ______________________________

____

3. Preparation — ______________________________

____

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments: ______________________________

____

____

____

____

FPW - 407-C

PREPARATION OF CEREALS, BREADS, AND DESSERTS
UNIT VI

TEST

NAME ____ SCORE ________________

1. Match to their correct definitions terms associated with the preparation of cereals, breads, and desserts. Write the correct numbers in the blanks. Definitions are continued on the following page.

______a. Distributing fat into dry ingredients by using a chopping motion to make small particles

______b. Substance that causes a product to rise during baking

______c. Manipulating dough by using hands or dough hook

______d. Combining ingredients and blending to distribute evenly throughout the mixture

______e. Enzymatic breakdown of sugar to carbon dioxide and alcohol

______f. Quick-cooking cereals that are partially cooked before packing

______g. Protein component of wheat that forms the structural framework of baked products

______h. Working a food until it is soft and creamy

______i. Folding dough inward to the center

______j. Dividing dough into uniform weights and shapes

______k. Vigorous, regular motion of lifting mixture over and over to introduce air or to smooth mixture

______l. Providing the proper conditions for allowing yeast bread dough to rise

______m. Flour mixtures made with a leavening agent other than yeast

1. Cutting in
2. Fermentation
3. Leavening
4. Beating
5. Scaling
6. Quick breads
7. Kneading
8. Punching down
9. Mixing
10. Proofing
11. Gluten
12. Processed cereals
13. Creaming
14. Stirring
15. Pasta
16. Folding in

TEST

______n. Combining two ingredients without losing the air in one of them

______o. Moving a spoon or utensil in a circular motion through the contents of a container

______p. Macaroni products

2. Select from the following list principles of cereal cookery. Write an "X" in the blank before each correct answer.

______a. Steam produced during cooking penetrates and causes eruption of starch granules in cereal

______b. Released starch absorbs water and forms a gel, which thickens cereal as it cooks

______c. Whole or cracked cereals require a shorter cooking time than flaked or granular cereals in which starch granules are less accessible

______d. Flaked cereal always has a mushy consistency

______e. Cooked cereal held for long periods of time at high temperatures breaks down and becomes thin

3. Select from the following list general procedures used in cooking cereals. Write an "X" in the blank before each correct answer.

______a. Stir constantly to make cereal smooth

______b. Stir only enough to prevent lumping

______c. Heat water and salt to boiling over direct heat

______d. Sprinkle cereal gradually into rapidly boiling water

______e. Cook cereal in a perforated insert pan

______f. Reduce heat when cereal has thickened and complete cooking to desired consistency

______g. Cook cereals as little as possible to avoid the flavor of raw starch

______h. Rinse cereals after cooking to remove starchy flavor

______i. Measure ingredients accurately

TEST

4. State the ratio of ingredients for rice and pasta cookery. Write the correct answers in the blanks provided.

	Quantity	Water	Salt
Rice	1 lb	b. ________	2 t
Pasta	a. ________	1 gal	c. ________

5. Describe two quality characteristics of rice and pasta.

Rice

a. ____

b. ____

Pasta

a. ____

b. ____

6. List classifications of flour mixtures.

a. ____

b. ____

7. Identify methods of mixing quick breads. Write the correct names in the spaces provided.

Muffin method
Pastry or biscuit method

a. ____

1) Sift combined dry ingredients into mixing bowl
2) Cut shortening into flour with knives or pastry blender
3) Add liquid all at once
4) Stir until dough forms a soft ball and leaves sides of bowl
5) Turn dough onto lightly floured board
6) Fold three or four times
7) Roll or lightly pat dough to desired thickness

TEST

b. ______________________________

1) Sift combined dry ingredients into mixing bowl

2) Combine liquids, including beaten eggs and oil or melted, slightly cooled fat

3) Add liquids all at once to dry ingredients

4) Mix batter using as few strokes as possible

8. List three leavening agents for quick breads.

a. ______________________________

b. ______________________________

c. ______________________________

9. Select from the following list factors that influence the quality of baked breads. Write an "X" in the blank before each correct answer.

_____a. Temperature of ingredients

_____b. Method of mixing ingredients

_____c. Quality of crumb

_____d. Mixing time

_____e. Size of baking pan

_____f. Weight of bread

_____g. Oven temperature

10. Identify methods of mixing yeast breads. Write the correct names in the spaces provided.

Straight dough method	**No-knead method**
Sponge dough method	**Cool-rise method**

a. ______________________________

1) Mix all ingredients together

2) Beat well

3) Scale and shape dough into loaves

4) Allow loaves to double in size

TEST

b. ______________________________

1) Mix all ingredients together
2) Knead dough until satiny looking and elastic
3) Set dough aside in warm place to rise
4) Knead and divide after dough has doubled in volume
5) Scale dough and form into balls; cover and let rest fifteen minutes
6) Shape dough into loaves

c. ______________________________

1) Combine yeast, liquid, and one-half to three-quarters of the flour to make a thick batter
2) Let batter rise until light and bubbly
3) Add sugar, salt, fat, and remaining flour
4) Knead dough
5) Scale dough and form into balls; cover and let rest fifteen minutes
6) Shape dough into loaves

d. ______________________________

1) Do not scald milk
2) Add flour to other ingredients in two steps and beat vigorously after each addition
3) Roll out dough on a floured surface
4) Scale and shape dough into loaves
5) Place dough in refrigerator to rise

11. Describe standards for yeast breads. Write the correct answers in the spaces provided.

Exterior

a. Shape — ______________________________

b. Size — ______________________________

TEST

c. Crust

1. ______________________________

2. ______________________________

d. Aroma — ______________________________

Interior

e. Flavor — ______________________________

f. Color — ______________________________

g. Crumb — ______________________________

12. Match yeast bread failures to possible causes. Write the correct numbers in the blanks.

_____a. Overraised dough; incomplete baking

_____b. Low-grade flour; insufficient rising period; overraised dough; too much fat

_____c. Stale yeast; low-grade flour; too cool an oven

_____d. Too much salt; underraised dough; overhandling of overraised dough; too little sugar

_____e. Low-grade flour; inferior yeast; too cool an oven

_____f. Poor mixing of dough; drying out of dough before shaping

_____g. Weak flour; overraised dough

1. Heaviness
2. Dark crumb
3. Coarse texture
4. Thick, tough, pale crust
5. Sour flavor
6. Streaked crumb
7. Crumbliness

13. Select from the following list standards for muffins. Write an "X" in the blank before each correct answer.

_____a. Large for weight

_____b. Flat top

_____c. Crispy crust

_____d. Moist and tender crumb

_____e. Tunnels

TEST

14. Select from the following list standards for biscuits. Write an "X" in the blank before each correct answer.

______a. Consistent shape

______b. Uniform size

______c. Browned only in center

______d. Rounded top

______e. Dry and brown crumb

15. Select from the following list standards for corn bread. Write an "X" in the blank before each correct answer.

______a. Good flavor

______b. Crumbly

______c. Golden brown crust

______d. Smooth surface

______e. Good volume

______f. Moist

______g. Fine texture

16. Select from the following list guidelines for preparing pie crust. Write an "X" in the blank before each correct answer.

______a. Use oil or margarine to produce a flaky crust

______b. Handle dough as little as possible

______c. Cut in shortening thoroughly, so that particles are pea-sized

______d. Use only enough water to form a soft ball of dough

______e. Stretch dough when placing in pie pan

______f. Prick a one-shell pie crust with a fork to allow steam to escape

______g. Make a good seal by keeping edges of pie crust dry before crimping or fluting

______h. Prevent shortening in dough from melting by allowing fillings to cool slightly before pouring onto dough

______i. Prevent fruit fillings from boiling out of crust by making sure that fillings contain sufficient solid ingredients

TEST

17. Match pie failures to possible causes. Write the correct numbers in the blanks.

______a. Not enough shortening; too much water; overmixed dough; dough stretched when placed in pan; too cool an oven

______b. Too much water; overmixed dough; not enough shortening; too much flour on rolling board

______c. Pastry fitted into pans too tightly; too cool an oven; pastry not pricked enough

______d. Too cool an oven; pastry rolled too thick; not enough bottom heat; pie underbaked; filling too thin; too much filling

______e. Filling boiled over; wet pan used; new pan used; heat circulation uneven

______f. Moisture in egg whites; whites underwhipped; filling too thin; insufficient sugar used; pie underbaked; pie stored in closed container

______g. Too hot an oven; did not touch crust all the way around

1. Crust is tough
2. Pastry shell is blistered
3. Crust shrinks excessively
4. Pie sticks to pan
5. Meringue shrinks
6. Bottom crust is soggy
7. Meringue breaks down

18. List classes of cakes.

a. ____

b. ____

19. Identify methods of cake preparation. Write the correct name in the space provided.

Conventional method **Quick-mixing method**

a. ____

1. Cream fat until light and fluffy
2. Add sugar gradually
3. Continue creaming
4. Add eggs and mix
5. Measure sifted flour
6. Sift flour with baking powder and salt
7. Combine milk and flavorings
8. Add flour and milk mixture alternately to egg, sugar, and fat base

TEST

b. ____

1. Sift dry ingredients into bowl
2. Add fat, milk, and flavorings
3. Beat vigorously for two minutes
4. Add eggs
5. Beat again two minutes or more

20. Distinguish between preparation of pans and batter for cakes made with and without fat. Write a "WF" in the blanks before steps for cakes made with fat, and a "WOF" in the blanks before steps for cakes made without fat.

_____a. Grease and flour bottom of cake pan

_____b. Turn pan to distribute mixture evenly

_____c. Bake in unoiled pan

_____d. Spread batter so it is thicker at the edges than in the center

_____e. Eliminate large air spaces by gently drawing a knife through batter

21. Describe at least one of the desirable characteristics of cakes for each of the following standards.

a. Appearance — ____________________________________

b. Color — ____________________________________

c. Moistness — ____________________________________

d. Texture — ____________________________________

e. Flavor — ____________________________________

22. Distinguish between methods of icing cakes using icings of different consistencies. Write an "H" in the blanks before steps used with heavy icing, and a "T" in the blanks before steps used with thin icing.

_____a. Meet top and sides

_____b. Pour icing on top of cake

_____c. Smooth off with spatula

_____d. Ice sides

_____e. Finish smoothly with spatula dipped in warm water

_____f. Work down sides

_____g. Ice top

TEST

23. List four classes of cookies.

a. ______________________________

b. ______________________________

c. ______________________________

d. ______________________________

24. Arrange in order general steps for mixing most cookies. Write a "1" before the first step, a "2" before the second step, and so on.

______a. Blend in egg

______b. Shape and place on cookie sheet

______c. Cream shortening and sugar well

______d. Add sifted dry ingredients alternately with liquid

(NOTE: Test question 25 lists the job sheets. They are an important part of this test. If they have not been completed, check with your instructor.)

25. Demonstrate the ability to

a. Prepare oatmeal.

b. Prepare macaroni and cheese.

c. Prepare rice.

d. Prepare yeast rolls.

e. Prepare baking powder biscuits.

f. Prepare muffins.

g. Prepare corn bread.

h. Prepare pie crust.

i. Prepare cherry pie filling.

j. Prepare cream puffs.

k. Prepare butter cake using conventional method.

l. Prepare chocolate cake using quick-mixing method.

m. Prepare creamy frosting.

n. Prepare chocolate chip cookies.

PREPARATION OF CEREALS, BREADS, AND DESSERTS
UNIT VI

ANSWERS TO TEST

(NOTE: It may be helpful to use your blank test to make a test key. The points designated in parentheses are intended to be guidelines and should be adapted to meet the needs of each teaching/learning situation. The point total for the entire test is 980. The point total for questions 1-24 is 280; the point total for question 25 is 700.)

1. (32 points)

a.	1	e.	2	i.	8	m.	6
b.	3	f.	12	j.	5	n.	16
c.	7	g.	11	k.	4	o.	14
d.	9	h.	13	l.	10	p.	15

2. (12 points)

   a, b, e,

3. (18 points)

   b, c, d, f, i

4. (9 points)

   a. 1 lb

   b. 1 qt

   c. 2 T

5. (8 points)

   Description should include any two of the following for rice and pasta

   Rice

   a. Fluffy

   b. Distinct kernels

   c. Water absorbed

ANSWERS TO TEST

Pasta

a. Tender

b. Firm

c. Distinct pieces

6. (2 points)

a. Batter

b. Dough

7. (4 points)

a. Pastry or biscuit method

b. Muffin method

8. (3 points)

Answer should include any three of the following

a. Baking powder

b. Baking soda

c. Air

d. Steam

9. (14 points)

a, b, d, e, g

10. (8 points)

a. No-knead method

b. Straight dough method

c. Sponge dough method

d. Cool-rise method

ANSWERS TO TEST

11. (8 points)

Description should include the following

Exterior

a. Shape — Consistent and even

b. Size — Large for weight

c. Crust

  1) Thin and crisp

  2) Light to golden brown

d. Aroma — fresh

Interior

e. Flavor — Bland

f. Color — Creamy white

g. Crumb — Elastic, small air cells, smooth texture

12. (14 points)

a. 5

b. 1

c. 2

d. 4

e. 3

f. 6

g. 7

13. (10 points)

a, c, d

ANSWERS TO TEST

14. (10 points)

    a, b

15. (14 points)

    a, c, e, f

16. (18 points)

    b, c, d, f, h, i

17. (28 points)

    a. 3

    b. 1

    c. 2

    d. 6

    e. 4

    f. 7

    g. 5

18. (2 points)

    a. Made with fat

    b. Made without fat

19. (4 points)

    a. Conventional method

    b. Quick-mixing method

ANSWERS TO TEST

20. (15 points)

   a. WF

   b. WOF

   c. WOF

   d. WF

   e. WOF

21. (10 points)

   Description should include any one of the following for each standard

   a. Appearance

      1. Even thickness

      2. Flat or slightly rounded top

      3. Smooth, fine-grained surface

   b. Color — Uniform, golden brown

   c. Moistness — Slightly moist

   d. Texture

      1. Fine, velvety

      2. Small, evenly distributed air cells

      3. Resilient, does not crumble when cut

      4. Tender

   e. Flavor

      1. Delicate, well-blended

      2. Sweet

ANSWERS TO TEST

22. (21 points)

    a. H

    b. T

    c. T

    d. H

    e. H

    f. T

    g. H

23. (4 points)

    Answer should include any four of the following

    a. Rolled

    b. Drop

    c. Sheet or bar

    d. Molded

    e. Pressed

    f. Refrigerator or sliced

24. (12 points)

    a. 2

    b. 4

    c. 1

    d. 3

ANSWERS TO TEST

25. Performance skills evaluated to the satisfaction of the clinical instructor

    a. (25 points)

    b. (50 points)

    c. (50 points)

    d. (75 points)

    e. (50 points)

    f. (50 points)

    g. (50 points)

    h. (50 points)

    i. (75 points)

    j. (50 points)

    k. (50 points)

    l. (50 points)

    m. (25 points)

    n. (50 points)

PREPARATION OF FRUITS AND VEGETABLES
UNIT VII

UNIT OBJECTIVE

After completing this unit the student should be able to prepare quality fruits and vegetables, while retaining the nutritive value they contain. This knowledge will be shown by completing the assignment sheet, job sheets, and unit test with a minimum score of 85 percent.

SPECIFIC OBJECTIVES

After completing this unit the student should be able to

1. Match terms associated with the preparation of fruits and vegetables to their correct definitions.
2. List forms of fruit available for purchase.
3. Select from a list guidelines for preparing fresh fruits.
4. Match types of fruits to efficient peeling processes.
5. Select from a list ways to prevent discoloration of cut fruit.
6. Select from a list principles of fruit cookery.
7. Select from a list purposes of fruit cookery.
8. List methods of fruit cookery.
9. Arrange in order steps in cooking dried fruits.
10. Select from a list suggestions for storage of fresh fruit.
11. Describe classifications of vegetables.
12. Match vegetables to advance preparation methods.
13. Select from a list methods of retaining the maximum nutritive value of vegetables.
14. List methods of vegetable cookery.
15. Match vegetables to correct guidelines for retaining their color.
16. Match vegetable cookery problems to possible causes.
17. Identify cooking methods for forms of vegetables available for purchase.

OBJECTIVE SHEET

18. List methods of serving vegetables.

19. Evaluate quality of prepared vegetables.

20. Demonstrate the ability to

    a. Prepare baked apples.

    b. Prepare broiled grapefruit.

    c. Prepare frozen carrots.

    d. Prepare canned carrots.

    e. Prepare fresh carrots.

    f. Prepare cauliflower au gratin.

    g. Prepare french fried okra.

PREPARATION OF FRUITS AND VEGETABLES
UNIT VII

SUGGESTED ACTIVITIES

I. Suggested activities

   A. Order materials planned to supplement unit.

      1. Film — *Vegetable Preparation*. Color, 16 mm, 10 minutes, National Educational Media, Inc., 1979. Available from National Educational Media, Inc., 15760 Ventura Blvd., Encino, California 91436. Rental fee.

      2. Film — *Deep Fat Frying*. Color, 16 mm, 10 minutes, National Educational Media, Inc., 1979. Available from National Educational Media, Inc., 15760 Ventura Blvd., Encino, California 91436. Rental fee.

   B. Provide students with objective sheet.

   C. Provide students with information, assignment, and job sheets.

   D. Discuss unit and specific objectives.

   E. Discuss information and assignment sheets.

   F. Demonstrate and discuss procedures outlined in job sheets.

   G. Develop appropriate learning activities for special needs students.

   H. Purchase one or two fruits in all forms available for purchase. Taste and evaluate them in class.

      EXAMPLE: Dried, fresh, frozen, and canned apricots

   I. Bring samples of exotic fruits to class.

      EXAMPLES: Mangos, kiwi, plantain bananas

   J. Encourage students to share suggested ways of preparing different vegetables. Make a chart of these to give each student for future help in planning menus.

   K. When discussing Information Sheet, Section XI, B, discuss examples of different colored vegetables.

   L. Arrange for class to visit a produce warehouse or produce market.

   M. Give test.

   N. Reteach if necessary.

II. Instructional materials

   A. Objective sheet

SUGGESTED ACTIVITIES

- B. Suggested activities
- C. Information sheet
- D. Clinical Assignment Sheet #1 — Evaluate Quality of Prepared Vegetables
- E. Answers to clinical assignment sheet
- F. Clinical job sheets
  1. Clinical Job Sheet #1 — Prepare Baked Apples
  2. Clinical Job Sheet #2 — Prepare Broiled Grapefruit
  3. Clinical Job Sheet #3 — Prepare Frozen Carrots
  4. Clinical Job Sheet #4 — Prepare Canned Carrots
  5. Clinical Job Sheet #5 — Prepare Fresh Carrots
  6. Clinical Job Sheet #6 — Prepare Cauliflower Au Gratin
  7. Clinical Job Sheet #7 — Prepare French Fried Okra
- G. Test
- H. Answers to test

III. Unit references

A. Grimes, Vici, and Jerald Chesser. *Food Service: Production and Service.* Stillwater, Oklahoma: State Department of Vocational and Technical Education/Curriculum and Instructional Materials Center, 1976.

B. Mahaffey, M.J. et al. *Food Service Manual for Health Care Institutions.* Chicago: American Hospital Association, 1981.

C. Oklahoma State University Department of Food, Nutrition and Institution Administration. *Food Preparation Manual,* 6th ed. Dubuque, Iowa: Kendall/Hunt Publishing Co., 1977.

D. Peckham, Gladys C., and Jeanne H. Freeland-Graves. *Foundations of Food Preparation,* 4th ed. New York: Macmillan Publishing Co., Inc., 1979.

PREPARATION OF FRUITS AND VEGETABLES
UNIT VII

INFORMATION SHEET

I. Terms and definitions

A. Nectar — Concentrated juice

B. Fruit drinks — Fruit juices combined with other ingredients

EXAMPLES: Lemonade, limeade, orange drink, fruit punch

(NOTE: These fruit drinks seldom contain vitamin C in the same amounts as provided in an equal portion of fruit juice.)

C. Cellulose — Indigestible fiber structure found in plants

D. Blemish — Dark spot found on fresh vegetables

E. Paring — Cutting off blemishes and/or the outside part of fruits and vegetables

F. Blanching — Rapidly heating foods by dipping briefly in boiling water

(NOTE: This allows frozen vegetables to retain their color, flavor, and texture longer.)

G. Oxidize — To unite and chemically react with oxygen

H. Stewing — Boiling slowly

I. Au gratin — Topped with butter or margarine, crumbs, and cheese, and then browned

J. Scallop — To bake in a sauce and cover with bread or cracker crumbs; to mix in layers

K. Glaze — To coat with sweet liquid of medium consistency

L. Souffle — Baked combination of vegetable pulp, eggs, and white sauce

M. Seasoned — Flavored with fat, salt, or pepper

N. Baste — To moisten with pan drippings

O. Tuber — Short, thickened, fleshy part of an underground stem

INFORMATION SHEET

II. Forms of fruit available for purchase

  A. Fresh

  B. Frozen

  C. Canned

  EXAMPLES: Sliced, cubed, halved, or whole; heavy syrup, light syrup, packed in own juice, water packed

  D. Dried

  E. Juice

  EXAMPLES: Nectar, concentrate, fruit drinks

III. Guidelines for preparing fresh fruits

  A. Wash fruit to remove poisonous sprays and dirt

  B. To prevent cell damage, handle fruit as little as possible

  (NOTE: When the cells of fruit are ruptured by cutting or peeling, the fruit discolors.)

  C. Cut fruit in chunks large enough to identify

  D. When combining fruits, choose fruits that complement each other in appearance, flavor, and texture

IV. Efficient peeling processes for types of fruits

  A. Fruits with membranes

  EXAMPLE: Citrus fruits

    1. Steam two to four minutes

    2. Score fruit peel in quarters

    (NOTE: Be careful not to pierce the fruit when scoring.)

    3. Peel fruit

INFORMATION SHEET

B. Soft fruits with skins that adhere

EXAMPLES: Peaches, apricots, nectarines, tomatoes

1. Blanch in boiling water for forty-five seconds
2. Cool immediately in cold water
3. Slip skin off fruit

C. Firm fruits with skins that adhere — Use potato peeler to pare very thin slices of skin from fruit

EXAMPLES: Apples, pears

V. Ways to prevent discoloration of cut fruit

A. Immerse in an acid juice

EXAMPLES: Lemon juice, orange juice, pineapple juice

(NOTE: The ascorbic acid [vitamin C] in these juices retards browning. However, once the ascorbic acid is completely oxidized, the discoloration continues.)

B. Mix with a commercial preparation of ascorbic acid

C. Cover with a sugar solution

(NOTE: This prevents the fruit from coming in contact with oxygen.)

D. Freeze, using an antioxidant

E. Blanch

(NOTE: Blanching inactivates the enzyme that causes fruit to discolor.)

VI. Principles of fruit cookery

A. Amount of water needed to soften cellulose depends on amount of cellulose and water in the fruit

EXAMPLES: Apples and pears need considerable water for cooking; berries should be cooked in very little water.

B. Addition of sugar early in cooking period strengthens cellulose structure and makes fruit firm

INFORMATION SHEET

C. Most fruit should be canned in lacquered containers to prevent discoloration from chemical reactions with metals

EXAMPLE: Cans lined in white or gold

D. Fruit should be cooked for only a short period of time to prevent flavor changes and nutrient losses

(NOTE: Vitamin C is unstable when heated.)

VII. Purposes of fruit cookery

A. Improving flavor

B. Increasing digestibility

(NOTE: Cooking softens the cellulose.)

C. Preserving for later use

(NOTE: Preserving fruits allows for more variety when fruits are not in season.)

VIII. Methods of fruit cookery

A. Stewing

EXAMPLE: Stewed prunes

B. Baking

EXAMPLE: Baked apples

C. Glazing

EXAMPLE: Glazed strawberries

D. Frying

EXAMPLES: Fried apples, fried plantain bananas

E. Broiling

EXAMPLES: Broiled peaches, broiled grapefruit

INFORMATION SHEET

IX. Steps in cooking dried fruits

(NOTE: Dried fruits may be used dried; however, dried fruits may be cooked and reabsorb water without losing flavor, texture, or nutritive value.)

- A. Soak in hot water a short time

  (NOTE: Some dried fruits have been processed and do not require soaking. Be sure to follow package directions.)

- B. Simmer in same water in covered pan
- C. Add sugar if needed

X. Suggestions for storage of fresh fruit

- A. Refrigerate

  (NOTE: Each fruit has an optimum storage temperature. Bananas should not be refrigerated because the skin darkens.)

- B. Arrange so that there is good air circulation
- C. Store in a separate place from foods that give off or absorb odors

XI. Classifications of vegetables

- A. Parts of plant
  1. Root

     EXAMPLES: Beet, carrot

  2. Bulb

     EXAMPLES: Onion, garlic

  3. Stem

     EXAMPLES: Rhubarb, celery

  4. Tuber

     EXAMPLE: Potato

  5. Leaf

     EXAMPLES: Lettuce, mustard greens, spinach

INFORMATION SHEET

6. Flower

   EXAMPLES: Cauliflower, broccoli

7. Seed

   EXAMPLES: Pea, pinto bean

B. Color

1. Green
2. Yellow
3. Red
4. White

C. Flavor

1. Mild

   EXAMPLES: Asparagus, carrots, corn, okra, squash

2. Strong

   EXAMPLES: Broccoli, brussels sprouts, onions, turnips

XII. Advance preparation methods for vegetables

A. Leaf and stem vegetables

1. Remove inedible parts
2. Examine stem and each leaf; trim damaged parts
3. Wash thoroughly in cold water

   (NOTE: Be careful not to bruise the leaves.)

4. Drain well before storing or serving

B. Tuber and root vegetables

1. Remove inedible parts
2. Scrub with a brush

INFORMATION SHEET

C. Flower vegetables

1. Remove inedible parts
2. Soak with head down in slightly salted water approximately fifteen minutes

   (NOTE: Use approximately 1 teaspoon salt to 1 quart water. Salt water causes insects to leave the vegetable grooves. This process may not be necessary because most commercial produce growers now wash the product before it is shipped.)

XIII. Methods of retaining the maximum nutritive value of vegetables

A. Use vegetables as soon as possible after purchase

B. Wash and trim damaged parts before placing in refrigerated storage

C. Remove as thin a layer of skin as possible

D. Leave skins on when baking, boiling, or steaming

E. Cut into large, uniform pieces just prior to cooking

(NOTE: The less surface area exposed, the lower the nutrient loss.)

F. Cook in the smallest amount of water possible

G. Cook only until crisp-tender

(NOTE: The exceptions to this method are potatoes and beets.)

H. Serve immediately

(NOTE: Do not hold over twenty minutes before serving.)

XIV. Methods of vegetable cookery

A. Baking

EXAMPLE: Baked potato

B. Stewing

EXAMPLES: Stewed cabbage, stewed carrots

C. Deep fat frying

EXAMPLES: French fried okra, breaded zucchini

INFORMATION SHEET

D. Panfrying or sauteing

EXAMPLE: Potatoes

E. Steaming

EXAMPLE: Asparagus, broccoli

F. Steaming under pressure

EXAMPLE: Fresh carrots, fresh corn

XV. Guidelines for retaining color in vegetables

A. Red vegetables

1. Add a small amount of a mild acid during cooking

EXAMPLES: Vinegar with red cabbage, pineapple with glazed Harvard beets

2. Avoid overcooking or extended holding periods

B. Green vegetables

(NOTE: Although baking soda intensifies the bright green color in vegetables, it also destroys some vitamins and adversely affects texture.)

1. Cook as close to serving time as possible

2. Use little water

(CAUTION: Do not add baking soda.)

3. Cook uncovered

(NOTE: The lid should be left off during the first few minutes of cooking to allow acids that are freed during cooking to escape.)

4. Avoid overcooking or extended holding periods

C. White vegetables

1. Add a small amount of mild acid during cooking

EXAMPLE: Cream of tartar in water for cooking cauliflower

2. Avoid overcooking or extended holding periods

INFORMATION SHEET

D. Yellow vegetables — Avoid overcooking or extended holding periods

(NOTE: Although the color in yellow vegetables is stable, overcooking can dull the color. Also, the high concentration of sugar in corn and carrots can be caramelized by overcooking or holding too long, resulting in a brownish color and undesirable flavor.)

XVI. Causes of problems encountered in vegetable cookery (Clinical Assignment Sheet #1)

A. Shape altered

1. Rapid boiling

2. Overcooking

B. Color changed

1. Overcooking

2. Slow cooking

3. Cooking green vegetables covered

C. Scorched

1. Rapid evaporation of liquid

2. High sugar content in vegetables

D. Overcooked — time not individualized for vegetable

(NOTE: Consider age, size, freshness, and variety in determining vegetable cooking time. Use of a timer is recommended.)

E. Flavor altered — Holding time over twenty minutes

(NOTE: Cooking small amounts of vegetables as needed is preferred to cooking large batches and holding for long periods of time.)

XVII. Cooking methods for forms of vegetables available for purchase

A. Fresh vegetables

1. Wash and complete advance preparation

2. Measure small amount of water into saucepan or steam kettle

(NOTE: These vegetables may also be cooked in a steamer.)

INFORMATION SHEET

3. Add salt if necessary

   EXAMPLE: 1/4 teaspoon salt to 1 cup water

4. Bring water and salt to a boil
5. Place vegetable in water
6. Cover if not a green or strongly flavored vegetable

   (NOTE: Covering the vegetable decreases the cooking time.)

7. Cook until crisp-tender
8. Season
9. Serve immediately

B. Frozen vegetables

1. Follow package directions for partial thawing or cooking frozen
2. Measure small amount of water into saucepan or steam kettle

   (NOTE: These vegetables may also be cooked in a steamer.)

3. Add salt if necessary
4. Bring water and salt to a boil
5. Place vegetable in water
6. Cover if not a green or strongly flavored vegetable
7. Cook until crisp-tender

   (NOTE: Frozen vegetables will cook in less time than fresh because they are blanched prior to freezing.)

8. Season
9. Serve immediately

C. Canned vegetables

1. Drain liquid from opened container into a saucepan or steam kettle

INFORMATION SHEET

2. Boil liquid until it is concentrated to half its original volume

   (NOTE: Concentrating the liquid keeps water-soluble nutrients from being thrown away.)

3. Add vegetables and seasonings

4. Heat to serving temperature

5. Serve immediately

D. Dried vegetables

1. Wash carefully

2. Remove foreign particles

3. Soak vegetable in twice its amount of water for several hours

   EXAMPLE: Soak 3 cups navy beans in 1 quart plus 1 pint of warm water.

   (NOTE: Dried vegetables triple in volume after soaking and cooking.)

4. Season

5. Boil gently in the same water

6. Serve immediately

XVIII. Methods of serving vegetables

A. Scalloped

B. Au gratin

C. Glazed

D. Souffleed

E. Stuffed

F. Creamed

G. In soups

H. In salads

FPW - 441-C

PREPARATION OF FRUITS AND VEGETABLES
UNIT VII

CLINICAL ASSIGNMENT SHEET #1 — EVALUATE QUALITY OF PREPARED VEGETABLES

NAME ______________________________ SCORE ______________

No matter what method is used, the cooking time has to be varied according to the age, size, freshness, and variety of each vegetable. Evaluate the vegetables prepared in your department for three days by completing the chart provided on the following page. Make additional copies of the chart if needed.

Rate the vegetable with a score of one to ten (one being very poor and ten being excellent) for color, flavor, shape, and texture. The standards on the following page can be used as a guide.

CLINICAL ASSIGNMENT SHEET #1

Standards for cooked vegetables

A. Color — Should be as near the color of the raw vegetable as possible

B. Shape — Should be as uniform as possible and not be broken or mashed

C. Texture — Crisp-tender

D. Flavor — Well-seasoned, natural flavor of raw vegetable

EXAMPLE:

Vegetable	Form	Cooking Method	Color	Shape	Texture	Flavor	Comments
Carrots	Canned	Steamed	8	10	5	7	Slightly overcooked

Vegetable	Form	Cooking Method	Color	Shape	Texture	Flavor	Comments

PREPARATION OF FRUITS AND VEGETABLES
UNIT VII

ANSWERS TO CLINICAL ASSIGNMENT SHEET

Evaluated to the satisfaction of the clinical instructor

PREPARATION OF FRUITS AND VEGETABLES
UNIT VII

CLINICAL JOB SHEET #1 — PREPARE BAKED APPLES

I. Equipment

- A. Paring knife
- B. Apple corer
- C. Baking pan
- D. One-quart liquid measure
- E. Scale or dry measure
- F. Measuring spoons
- G. Long-handled solid spoon
- H. Saucepan
- I. Range
- J. Oven

II. Ingredients

(NOTE: This recipe will yield fifty servings.)

- A. Apples, 50

  (NOTE: Apples should be of uniform size and suitable for baking.)

- B. Sugar, 3 lb or 6 c

  (NOTE: Amount of sugar needed will vary with tartness of apples.)

- C. Water, 3 c
- D. Salt, 1 t
- E. Cinnamon, 1 T

III. Procedure

- A. Preheat oven to 375°F

CLINICAL JOB SHEET #1

B. Wash apples

C. Core apples with apple corer

(NOTE: A paring knife may be used if an apple corer is not available.)

D. Pare down about one-quarter of the way from top

E. Place in baking pan, pared side up

F. Heat water in saucepan on range

G. Mix sugar, salt, and cinnamon with water

H. Pour mixture over apples

I. Bake in 375°F oven approximately forty-five minutes

J. Baste apples to glaze while cooking

K. Bake until tender; test with paring knife tip

L. Serve immediately with syrup

M. Return equipment and supplies to their proper places and clean work area

CLINICAL JOB SHEET #1

IV. Product evaluation

Product:

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring — ____________________
2. Temperature of Cookery — ____________________
3. Preparation — ____________________

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments: ____________________

PREPARATION OF FRUITS AND VEGETABLES
UNIT VII

CLINICAL JOB SHEET #2 — PREPARE BROILED GRAPEFRUIT

I. Equipment

- A. Two steam table pans, 2 inches deep
- B. Measuring spoons
- C. Knife
- D. Broiler

II. Ingredients

(NOTE: This recipe will yield thirty servings.)

- A. Grapefruit, 15
- B. Brown sugar, $^2/_3$ c
- C. Margarine, $^1/_3$ c
- D. Maraschino cherries, 30

III. Procedure

- A. Cut grapefruit in half parallel to stem end
- B. Arrange halves in steam table pans, cut side up
- C. Sprinkle each grapefruit with 1 to $1^1/_2$ teaspoons brown sugar
- D. Dot each grapefruit with $^1/_2$ teaspoon margarine
- E. Place pans in broiler
- F. Adjust shelves so that pans are 6 inches below broiler
- G. Broil until tops turn light brown
- H. Remove from broiler and garnish each half with a maraschino cherry
- I. Serve hot
- J. Return equipment and supplies to their proper places and clean work area

CLINICAL JOB SHEET #2

IV. Product evaluation

Product:						
Check the box that describes your rating of the product.						
	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring — ______________________________

2. Temperature of Cookery — ______________________________

3. Preparation — ______________________________

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments: ______________________________

PREPARATION OF FRUITS AND VEGETABLES
UNIT VII

CLINICAL JOB SHEET #3 — PREPARE FROZEN CARROTS

I. Equipment

A. Steamer

B. Scale or dry measure

C. Two perforated steamer pans, 2 inches deep

D. Measuring spoons

E. Two half steam table pans, 4 inches deep

F. Saucepan

G. Range

II. Ingredients

(NOTE: The following ingredients will yield approximately fifty 1/2-cup servings.)

A. Sliced frozen carrots, 10 lbs or 1 1/2 gal + 1 1/2 qt

B. Melted margarine or butter, 2 oz or 1/4 c

C. Salt, 1 t

III. Procedure

(NOTE: Frozen carrots may also be cooked on top of the range as described in Information Sheet, Section XVII.)

A. Place frozen carrots in perforated steamer pans

B. Place pans in steamers

C. Cook five to six minutes

(NOTE: Start timing after pressure reaches 5 pounds.)

D. Remove carrots from steamer

E. Place carrots in steam table pans

CLINICAL JOB SHEET #3

F. Melt butter or margarine in saucepan on range

G. Pour margarine or butter over carrots

H. Sprinkle salt over carrots

I. Serve immediately

J. Return equipment and supplies to their proper places and clean work area

CLINICAL JOB SHEET #3

IV. Product evaluation

Product:

Check the box that describes your rating of the product.

Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance					
Texture/ Consistency					
Flavor					

What techniques should be improved?

1. Measuring — ______________________________

____

2. Temperature of Cookery — ______________________________

____

3. Preparation — ______________________________

____

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments:______________________________

____

____

PREPARATION OF FRUITS AND VEGETABLES
UNIT VII

CLINICAL JOB SHEET #4 — PREPARE CANNED CARROTS

I. Equipment

  A. Steam kettle

  B. Scale or dry measuring cup

  C. Two half steam table pans, 4 inches deep

  D. Spoon

  E. Saucepan

II. Ingredients

  (NOTE: The following ingredients will yield approximately fifty ½-cup servings.)

  A. Two #10 cans sliced carrots

  B. Margarine or butter, 4 oz or ½ c

III. Procedure

  (NOTE: Canned carrots may also be prepared in the steamer.)

  A. Wipe off top of can

  B. Open can

  C. Drain liquid into steam kettle

    (NOTE: If steam kettle is not available, a stockpot on top of range may be used.)

  D. Add salt if necessary

  E. Boil liquid until concentrated to half its original volume

  F. Melt butter or margarine in saucepan on range

  G. Add vegetable to liquid in steam kettle

  H. Heat to serving temperature

CLINICAL JOB SHEET #4

I. Pour into steam table pans

J. Pour melted butter or margarine over vegetable

K. Serve immediately

L. Return equipment and supplies to their proper places and clean work area

CLINICAL JOB SHEET #4

IV. Product evaluation

Product:						
Check the box that describes your rating of the product.						
	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring — ______________________________

____

2. Temperature of Cookery — ______________________________

____

3. Preparation — ______________________________

____

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments:______________________________

____

____

CLINICAL JOB SHEET #5

IV. Product evaluation

Product:

Check the box that describes your rating of the product.

Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance					
Texture/ Consistency					
Flavor					

What techniques should be improved?

1. Measuring — ____________________

____

2. Temperature of Cookery — ____________________

____

3. Preparation — ____________________

____

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments:____________________

____

____

CLINICAL JOB SHEET #5

E. Weigh or measure

F. Place in perforated steamer pan

G. Cook ten to fifteen minutes

(NOTE: Start timing after pressure reaches 5 pounds.)

H. Remove carrots from steamer

I. Place carrots in steam table pans

J. Melt butter or margarine in saucepan on range

K. Pour margarine or butter over carrots

L. Sprinkle salt over carrots

M. Serve immediately

N. Return equipment and supplies to their proper places and clean work area

PREPARATION OF FRUITS AND VEGETABLES
UNIT VII

CLINICAL JOB SHEET #5 — PREPARE FRESH CARROTS

I. Equipment

  A. Steamer

  B. Perforated steamer pan, 2 inches deep

  C. Two half steam table pans, 4 inches deep

  D. Cutting board

  E. Parer or peeler

  F. Knife

  G. Saucepan

  H. Range

  I. Skimmer

  J. Scale or dry measure

II. Ingredients

(NOTE: The following ingredients will yield approximately fifty 1/2-cup servings.)

  A. Raw carrots, 10 lbs (edible portion weight) or 1 1/2 gal + 1 1/2 qt (edible portion)

  B. Margarine or butter, 4 oz or 1/2 c

  C. Salt, 1/2 t

III. Procedure

  A. Wash carrots

  B. Trim ends

  C. Pare outside layer of carrots

  D. Cut in 1/2-inch slices

PREPARATION OF FRUITS AND VEGETABLES
UNIT VII

CLINICAL JOB SHEET #6 — PREPARE CAULIFLOWER AU GRATIN

I. Equipment

- A. Steamer
- B. Two perforated steamer pans, 2 inches deep
- C. Two steam table pans, 2 inches deep
- D. Scale or dry measurers
- E. Measuring spoons
- F. One-gallon liquid measure
- G. Two saucepans
- H. Range
- I. Knife
- J. Grater
- K. Spoon
- L. Ladle

II. Ingredients

(NOTE: The following ingredients will yield approximately fifty 1/2-cup servings.)

- A. Milk, 3 qt
- B. Flour, 6 oz or 3/4 c
- C. Butter or margarine, 3/4 lb or 1 1/2 c
- D. Salt, 2 1/2 t
- E. Sharp cheddar cheese, 2 1/4 lb or 2 qt + 1 c
- F. Worcestershire sauce, 1 T + 1 1/2 t
- G. Pepper, 1 t

CLINICAL JOB SHEET #6

H. Frozen cauliflower, 12 lb or 1½ gal

III. Procedure

A. Grate cheese

B. Heat milk in saucepan on range

C. Melt butter or margarine in steam kettle or saucepan on range

D. Remove butter or margarine from heat

E. Add flour

F. Stir until smooth

G. Add 1½ teaspoons salt

H. Add hot milk gradually to butter and flour mixture, stirring constantly

I. Add to sauce grated cheese, Worchestershire sauce, and pepper

J. Heat and stir as necessary until smooth and thick, approximately fifteen to twenty minutes

K. Divide cauliflower between perforated steamer pans

L. Place pans in steamer

M. Cook four to five minutes

(NOTE: Start timing after pressure reaches 5 pounds.)

N. Remove cauliflower from steamer

O. Place cauliflower in steam table pans

P. Sprinkle each pan with ½ teaspoon salt

Q. Ladle hot cheese sauce over cauliflower

R. Serve immediately

S. Return equipment and supplies to their proper places and clean work area

CLINICAL JOB SHEET #6

IV. Product evaluation

Product:

Check the box that describes your rating of the product.

	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring — ______________________________
2. Temperature of Cookery — ______________________________
3. Preparation — ______________________________

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments: ______________________________

PREPARATION OF FRUITS AND VEGETABLES
UNIT VII

CLINICAL JOB SHEET #7 — PREPARE FRENCH FRIED OKRA

I. Equipment

A. Paring knife

B. French knife

C. Cutting board

D. One-quart scale or dry measure

E. One-quart liquid measure

F. Measuring spoons

G. Mixing bowl

H. Mixer and paddle attachment

I. Deep-fat fryer

(NOTE: A tilting braising pan or other frying equipment could also be used.)

J. Two tongs

K. Three steam table pans, 2 inches deep

L. Absorbent paper

M. Slotted spoon

N. Skimmer

II. Ingredients

(NOTE: The following ingredients will yield fifty ½-cup servings.)

A. Okra, 10 lb

B. Eggs, 6

C. Milk, 1 pt

CLINICAL JOB SHEET #7

D. Flour, 12 oz or 3 c

E. Baking powder, 2 t

F. Salt, 1½ t

G. Oil, enough to fill deep-fat fryer

H. Extra flour for flouring okra before dipping in batter

III. Procedure

A. Line two steam table pans with absorbent paper

B. Wash okra

C. Remove blemishes and stem ends with paring knife

D. Cut okra into ½-inch slices on cutting board with French knife

E. Put extra flour in one steam table pan

F. Beat eggs in mixing bowl

G. Stir in milk

H. Add flour, baking powder, and salt

I. Mix to make batter

J. Remove from mixer

K. Roll okra in flour in steam table pan

L. Dip okra in batter and coat

M. Move okra to deep-fat fryer with slotted spoon

N. Fry four to six minutes at 370°F

O. Remove with skimmer

P. Place okra in steam table pan on absorbent paper

Q. Repeat steps K through P until finished

R. Serve immediately

S. Return equipment and supplies to their proper places and clean work area

CLINICAL JOB SHEET #7

IV. Product evaluation

Product:						
Check the box that describes your rating of the product.						
	Excellent	Very Good	Good	Fair	Poor	Unacceptable
Appearance						
Texture/ Consistency						
Flavor						

What techniques should be improved?

1. Measuring — ______________________________

____

2. Temperature of Cookery — ______________________________

____

3. Preparation — ______________________________

____

Circle the statement that describes your rating of the product.

Portion size: Too large Adequate Too small

Comments:______________________________

____

____

PREPARATION OF FRUITS AND VEGETABLES
UNIT VII

TEST

NAME ______________________________ SCORE ______________

1. Match terms associated with the preparation of fruits and vegetables to their correct definitions. Write the correct numbers in the blanks.

_____a. Flavored with fat, salt, or pepper

_____b. Fruit juices combined with other ingredients

_____c. Dark spot found on fresh vegetables

_____d. To moisten with pan drippings

_____e. To unite and chemically react with oxygen

_____f. Concentrated juice

_____g. To coat with sweet liquid of medium consistency

_____h. Boiling slowly

_____i. Cutting off blemishes and/or the outside part of fruits and vegetables

_____j. To bake in a sauce and cover with bread or cracker crumbs; to mix in layers

_____k. Rapidly heating foods by dipping briefly in boiling water

_____l. Topped with butter or margarine, crumbs, and cheese, and then browned

_____m. Baked combination of vegetable pulp, eggs, and white sauce

_____n. Indigestible fiber structure found in plants

_____o. Short, thickened, fleshy part of an underground stem

1. Baste
2. Seasoned
3. Nectar
4. Fruit drinks
5. Souffle
6. Glaze
7. Cellulose
8. Blemish
9. Scallop
10. Au gratin
11. Paring
12. Blanching
13. Oxidize
14. Stewing
15. Tuber

TEST

2. List three forms of fruit available for purchase.

a. ______________________________

b. ______________________________

c. ______________________________

3. Select from the following list guidelines for preparing fresh fruits. Write an "X" in the blank before each correct answer.

______a. Peel fruit before storage to remove harmful bacteria

______b. When combining fruits, choose fruits that complement each other in appearance, flavor, and texture

______c. To prevent cell damage, handle fruit as little as possible

______d. Slice all fruits parallel to stem end

______e. Cut fruit in chunks large enough to identify

______f. Boil fruit to make it easier to peel

______g. Wash fruit to remove poisonous sprays and dirt

4. Match types of fruit to efficient peeling processes. Write the correct numbers in the blanks.

______a.	Steam two to four minutes; score fruit peel in quarters; peel fruit	1. Firm fruits with skins that adhere
______b.	Use potato peeler to pare very thin slices of skin from fruit	2. Soft fruits with skins that adhere
______c.	Blanch in boiling water for forty-five seconds; cool immediately in cold water; slip skin off fruit	3. Fruits with membranes

5. Select from the following list ways to prevent discoloration of cut fruit. Write an "X" in the blank before each correct answer.

______a. Freeze, using an antioxidant

______b. Stew

______c. Cover with a sugar solution

______d. Blanch

TEST

_____e. Immerse in an acid juice

_____f. Refrigerate until ready to use

_____g. Cover with a moist towel

_____h. Mix with a commercial preparation of ascorbic acid

6. Select from the following list principles of fruit cookery. Write an "X" in the blank before each correct answer.

_____a. Addition of sugar early in cooking period strengthens cellulose structure and makes fruit mushy

_____b. Fruit should be cooked for only a short period of time to prevent flavor changes and nutrient losses

_____c. Most fruit should be canned in lacquered containers to prevent discoloration from chemical reactions with metals

_____d. Fruit should be cooked in iron cookware to prevent scorching

_____e. Cooking thermometer should be used when cooking fruit to ensure that temperature is high enough to destroy colstridium botulinum

_____f. Amount of water needed to soften cellulose depends on amount of cellulose and water in the fruit

7. Select from the following list purposes of fruit cookery. Write an "X" in the blank before each correct answer.

_____a. Preventing discoloration

_____b. Preserving for later use

_____c. Improving flavor

_____d. Killing harmful bacteria

_____e. Improving nutrient content

_____f. Increasing digestibility

8. List three methods of fruit cookery.

a. ______________________________

b. ______________________________

c. ______________________________

TEST

9. Arrange in order the steps in cooking dried fruits. Write a "1" before the first step, a "2" before the second step, and so on.

_____a. Simmer in same water in covered pan

_____b. Add sugar if needed

_____c. Soak in hot water

10. Select from the following list suggestions for the storage of fresh fruit. Write an "X" in the blank before each correct answer.

_____a. Wrap in plastic wrap

_____b. Store at room temperature

_____c. Store in a separate place from foods that give off or absorb odors

_____d. arrange so that there is good air circulation

_____e. Store with stem end up

_____f. Refrigerate

11. Describe classifications of vegetables.

a. Parts of plant

1) ____________________

2) ____________________

3) ____________________

4) ____________________

5) ____________________

6) ____________________

7) ____________________

b. Color

1) ____________________

2) ____________________

3) ____________________

4) ____________________

TEST

c. Flavor

1) ______________________________

2) ______________________________

12. Match vegetables to advance preparation methods. Write the correct numbers in the blanks.

_____a. Remove inedible parts; examine stem and each leaf; trim damaged parts; wash thoroughly in cold water; drain well before storing or serving

_____b. Remove inedible parts; scrub with a brush

_____c. Remove inedible parts; soak with head down in slightly salted water approximately fifteen minutes; rinse after soaking

1. Tuber and root vegetables
2. Flower vegetables
3. Leaf and stem vegetables

13. Select from the following list methods of retaining the maximum nutritive value of vegetables. Write an "X" in the blank before each correct answer.

_____a. Leave skins on when baking, boiling, or steaming

_____b. Wash and trim damaged parts before placing in refrigerated storage

_____c. Cut into small, uniform pieces just prior to cooking

_____d. Add baking soda to green vegetables

_____e. Remove as thin a layer of skin as possible

_____f. Cook in the smallest amount of water possible

_____g. Soak peeled vegetables in water overnight

_____h. Use vegetables as soon as possible after purchase

_____i. Cook until well done

_____j. Serve immediately

TEST

14. List four methods of vegetable cookery.

a. ______________________________

b. ______________________________

c. ______________________________

d. ______________________________

15. Match vegetables to correct guidelines for retaining their color. Write the correct numbers in the blanks. Some blanks may contain more than one number.

_____a. Add a small amount of mild acid during cooking; avoid overcooking or extended holding periods

_____b. Avoid overcooking or extended holding periods

_____c. Cook as close to serving time as possible; use little water; cook uncovered; avoid overcooking or extended holding periods

1. Yellow vegetables
2. Green vegetables
3. Red vegetables
4. White vegetables

16. Match vegetable cookery problems to possible causes. Write the correct numbers in the blanks.

_____a. Holding time over twenty minutes

_____b. Rapid evaporation of liquid; high sugar content in vegetables

_____c. Cooking time not individualized for vegetable

_____d. Rapid boiling; overcooking

_____e. Overcooking; slow cooking; cooking green vegetables covered

1. Scorched
2. Overcooked
3. Flavor altered
4. Shape altered
5. Color changed

TEST

17. Identify cooking methods for forms of vegetables available for purchase. Write the correct names in the blanks.

Fresh vegetables	**Canned vegetables**
Frozen vegetables	**Dried vegetables**

a. ______________________________

1) Drain liquid from opened container into a saucepan or steam kettle
2) Boil liquid until it is concentrated to half its original volume
3) Add vegetable and seasonings
4) Heat to serving temperature
5) Serve immediately

b. ______________________________

1) Follow package directions for partial thawing or cooking frozen
2) Measure small amount of water into saucepan or steam kettle
3) Add salt if necessary
4) Bring water and salt to a boil
5) Place vegetable in water
6) Cover if not a green or strongly flavored vegetable
7) Cook until crisp-tender
8) Season
9) Serve immediately

c. ______________________________

1) Wash carefully
2) Remove foreign particles
3) Soak vegetable in twice its amount of water for several hours
4) Season
5) Boil gently in the same water
6) Serve immediately

TEST

d. ____________________

1) Wash and complete advance preparation
2) Measure small amount of water into saucepan or steam kettle
3) Add salt if necessary
4) Bring water and salt to a boil
5) Place vegetable in water
6) Cover if not a green or strongly flavored vegetable
7) Cook until crisp-tender
8) Season
9) Serve immediately

18. List five methods of serving vegetables.

a. ____________________

b. ____________________

c. ____________________

d. ____________________

e. ____________________

(NOTE: Test questions 19 and 20 list the assignment and job sheets. They are an important part of this test. If they have not been completed, check with your instructor.)

19. Evaluate quality of prepared vegetables.

20. Demonstrate the ability to

a. Prepare baked apples.

b. Prepare broiled grapefruit.

c. Prepare frozen carrots.

d. Prepare canned carrots.

TEST

e. Prepare fresh carrots.

f. Prepare cauliflower au gratin.

g. Prepare french fried okra.

PREPARATION OF FRUITS AND VEGETABLES
UNIT VII

ANSWERS TO TEST

(NOTE: It may be helpful to use your blank test to make a test key. The points designated in parentheses are intended to be guidelines and should be adapted to meet the needs of each teaching/learning situation. The point total for the entire test is 831. The point total for questions 1-18 is 206; the point total for questions 19 and 20 is 625.)

1. (30 points)

a.	2	f.	3	k.	12
b.	4	g.	6	l.	10
c.	8	h.	14	m.	5
d.	1	i.	11	n.	7
e.	13	j.	9	o.	15

2. (3 points)

   Answer should include any three of the following

   a. Fresh
   b. Frozen
   c. Canned
   d. Dried
   e. Juice

3. (12 points)

   b, c, e, g

4. (6 points)

   a. 3
   b. 1
   c. 2

ANSWERS TO TEST

5. (16 points)

a, c, d, e, h

6. (18 points)

b, c, f

7. (12 points)

b, c, f

8. (3 points)

Answer should include any three of the following

a. Stewing

b. Baking

c. Glazing

d. Frying

e. Broiling

9. (9 points)

a. 2

b. 3

c. 1

10. (12 points)

c, d, f

ANSWERS TO TEST

11. (26 points)

Description should include the following

a. Parts of plant	b. Color	c. Flavor
1) Root	1) Green	1) Mild
2) Bulb	2) Yellow	2) Strong
3) Stem	3) Red	
4) Tuber	4) White	
5) Leaf		
6) Flower		
7) Seed		

12. (6 points)

a. 3

b. 1

c. 2

13. (14 points)

a, b, e, f, h, j

14. (4 points)

Answer should include any four of the following

a. Baking
b. Stewing
c. Deep fat frying
d. Pan frying or sauteing
e. Steaming
f. Steaming under pressure

ANSWERS TO TEST

15. (12 points)

    a. 3, 4

    b. 1

    c. 2

16. (10 points)

    a. 3

    b. 1

    c. 2

    d. 4

    e. 5

17. (8 points)

    a. Canned vegetables

    b. Frozen vegetables

    c. Dried vegetables

    d. Fresh vegetables

18. (5 points)

    Answer should include any five of the following

a.	Scalloped	e.	Stuffed
b.	Au gratin	f.	Creamed
c.	Glazed	g.	In soups
d.	Souffleed	h.	In salads

19. Evaluated to the satisfaction of the clinical instructor (75 points)

COST CONTROL IN FOOD PRODUCTION
UNIT X

SUGGESTED ACTIVITIES

I. Suggested activities

A. Order materials to supplement unit. Filmstrip — *Waste Prevention.* 35 mm filmstrip with cassette, 8 minutes, 1969. Available from National Educational Media, Inc., 15760 Ventura Boulevard, Encino, California 91436. Rental fee.

(NOTE: This filmstrip emphasizes the employees' roles in controlling costs by preventing waste. "The Waster" is the villain, demonstrating many wasteful habits such as ignoring portion control, discarding good food, and carelessly breaking dishes. Employee awareness and responsibility are encouraged, with special emphasis on waste-prevention rules.)

B. Make transparencies.

C. Provide students with objective sheet.

D. Discuss unit and specific objectives.

E. Provide students with information and assignment sheets.

F. Discuss information and assignment sheets.

G. Before discussing Class Assignment Sheet #1, prepare an example of precosting a standardized recipe using the format in Transparencies #1 and #2.

H. Before discussing Class Assignment Sheet #2, prepare an example of precosting a meal to use in explaining how to determine portion cost.

I. Develop appropriate learning activities for special needs students.

J. Ask students to bring a copy of the following forms used in their facilities: Standardized Recipe, Purchase Order, Perpetual or Physical Inventory, and Meal Census sheet. Discuss the various examples of forms with the students.

K. Give test.

L. Reteach if necessary.

II. Instructional materials

A. Objective sheet

B. Suggested activities

C. Information sheet

SUGGESTED ACTIVITIES

D. Transparency masters

    1. TM #1 — Recipe Card

    2. TM #2 — Format to Precost Recipe

E. Class assignment sheets

    1. Class Assignment Sheet #1 — Precost a Standardized Recipe

    2. Class Assignment Sheet #2 — Precost Menu Items

F. Answers to class assignment sheets

G. Clinical assignment sheets

    1. Clinical Assignment Sheet #1 — Precost One Day of the Menu Cycle

    2. Clinical Assignment Sheet #2 — Compare Cost per Serving of Different Brands of a Food Item

    3. Clinical Assignment Sheet #3 — Check a Grocery Order Against the Invoice

    4. Clinical Assignment Sheet #4 — Record Information on a Food Production Sheet

    5. Clinical Assignment Sheet #5 — Record Meals Served for a Five-Day Period

H. Answers to clinical assignment sheets

I. Test

J. Answers to test

III. Unit references

A. Barker, Ellen H. "Food Purchasing and Cost Control Seminar: Nutrition Training." Photocopied, Moore-Norman Area Vocational Technical School, 1981.

B. Knoll, Anne P. *Food Service Management: A Human Relations Approach.* New York: McGraw-Hill Book Co., Gregg Division, 1976.

C. Stokes, J.F. *Cost Effective Quality Food Service.* Germantown, Maryland: Aspen Systems Corporation, 1979.

D. West, B.B., et al. *Food Service in Institutions,* 5th ed. New York: John Wiley and Sons, Inc., 1977.

COST CONTROL IN FOOD PRODUCTION
UNIT X

INFORMATION SHEET

I. Terms and definitions

   A. Cost control — Control over all items of income and expense concerned with the functioning of the food service system

   B. Purchase order — Written record of orders placed with a vendor

   C. Invoice — Vendor's itemized list of merchandise delivered to the buyer; states quantity, price, and description

   D. Perpetual inventory — System that lists each stock item separately, listing each transaction as it occurs

   E. Physical inventory — Actual count of supplies

   F. Meal census — Organized count of meals for patients, personnel, and any others served

   G. Precosting — Cost control measure involving the calculation of the cost of menus in advance of their use so that adjustments can be made in the menu before it is put into production

II. Factors involved in food cost control

   A. Menu planning

   B. Purchasing

   C. Receiving

   D. Storage

   E. Food production

   F. Record keeping

III. Steps in precosting menus (Class Assignment Sheet #2; Clinical Assignment Sheet #1)

   A. Plan menu cycle

   (NOTE: A menu cycle of four weeks or longer is recommended for long-term care facilities. A hospital may have a shorter menu cycle because of shorter patient stay.)

INFORMATION SHEET

B. Standardize all recipes and precost (Transparencies #1 and #2; Class Assignment Sheet #1)

(NOTE: All recipes needed for the cycle menu must be standardized and precosted to determine cost of menu.)

C. Calculate price per portion for each menu item

D. Assign portion costs to each item on menu cycle

E. Total raw food cost per day

F. Calculate average food cost for week

G. Find average food cost for four weeks

IV. Steps for intelligent food purchasing

A. Find out what you have on hand

EXAMPLES: Complete a freezer inventory; complete a refrigerator inventory; complete a storeroom inventory.

B. Find out what you need

(NOTE: Prepare a market order.)

C. Know the number of persons you are going to serve

(NOTE: Check the census sheet.)

D. Obtain prices on items (Clinical Assignment Sheet #2)

(NOTE: Get bids from at least two vendors. Figure price per serving on items.)

E. Determine which products best meet your needs

(NOTE: Compare grade and quality. Consider how you plan to use the item. Write simple specifications for what you wish to purchase.)

EXAMPLE: Diced tomatoes save time in chopping tomatoes for items such as spaghetti sauce and casseroles. Whole tomatoes would be more expensive and take more preparation time.

F. Prepare a purchase order

INFORMATION SHEET

V. Steps to maintain good cost control in receiving food

   A. Check against invoice all items received (Clinical Assignment Sheet #3)

      (NOTE: This should be done while the delivery person is still present in the facility.)

   B. Count all items as received

   C. Weigh all items as received

   D. Check quality of all items

      (NOTE: Return damaged or dented cans, broken bags or boxes.)

   E. Check substitutions

      (NOTE: Be sure that a less-expensive or more-expensive item has not been substituted for what was ordered.)

   F. Check price on invoice against quotation price

   G. Check each item on purchase order to see that it matches invoice

VI. Steps to maintain good cost control in storing food

   A. Mark date and cost on case or on each can or box as stored

      (NOTE: This may not be appropriate in a large facility.)

   B. Store refrigerated items immediately

   C. Store freezer items immediately

   D. Stock old merchandise to the front of the shelf and new merchandise to the back

   E. Keep all storage areas at correct temperature to prevent losses

   F. Limit access to storage areas

   G. Keep all storage areas locked when not in use

INFORMATION SHEET

VII. Food production practices to maintain good cost control

- A. Know exact number of meals to prepare

  (NOTE: Money is often lost because too many meals are prepared and wasted.)

- B. Use standardized recipes

  (NOTE: Standardized recipes control the cost of an item because the preparation and yield are standardized.)

- C. Be sure to use standard portions of each item served

  (NOTE: Portion control of every item served is cost effective.)

- D. Use leftovers wisely

  (NOTE: No food should be wasted if handled properly. Using all food purchased is cost effective.)

- E. Use a food production sheet (Clinical Assignment Sheet #4)

  (NOTE: A food production sheet provides information important for food cost control.)

- F. Scrape cans, jars, and mixing bowls clean

  (NOTE: Waste often results when food is left in a can, jar, or mixing bowl.)

- G. Cook at correct temperatures

  (NOTE: Meat shrinkage results when meat is cooked at too high a temperature. Therefore, the number of servings is reduced and the cost per serving increased.)

VIII. Records that should be maintained accurately by the supervisor

- A. Cycle menu
- B. Purchasing and receiving order
- C. Meal census records (Clinical Assignment Sheet #5)
- D. Inventory

  (NOTE: Either a perpetual or physical inventory may be used.)

- E. Daily summary of vendor invoices for food, supplies, and equipment
- F. Food cost records

Recipe Card

Carrifruit Salad

YIELD: 50 servings

INGREDIENTS	WEIGHT	MEASURE	COST	DIRECTIONS
Carrots, shredded	4 lb 8oz			Mix all ingredients lightly.
Marshmallows, cut or miniature	9 oz			Add mayonnaise blended with cream. Mix carefully.
Pineapple tidbits, drained	2 lb 12 oz			Serve with No. 12 dipper.
Coconut, flaked	8 oz			
Mayonnaise		2¼ c		
Cream		¾ c		

COST PER SERVING: PAN SIZE: 6-qt bowl SERVING SIZE: ⅓ c

TM #1

FPW - 569-C

Format to Precost Recipe

Carrifruit Salad

Recipe Ingredients	Amount	Purchase Unit	Cost Purchase Unit	Breakdown Figure*	Recipe Amount	Cost of Recipe Amount
Carrots	______	______	______	______	______	______
Marshmallows	______	______	______	______	______	______
Pineapple tidbits	______	______	______	______	______	______
Coconut, flaked	______	______	______	______	______	______
Mayonnaise	______	______	______	______	______	______
Cream	______	______	______	______	______	______

Grand Total ______

Cost per Serving ______

---

*Smallest unit specified for an ingredient—pound, ounce, cup, tablespoon, and so on.

FPW - 573-C

COST CONTROL IN FOOD PRODUCTION
UNIT X

CLASS ASSIGNMENT SHEET #1 — PRECOST A STANDARDIZED RECIPE

NAME ______________________________ SCORE ______________

Precosting standardized recipes is important for food cost control. The following exercise is intended to teach steps in precosting a standardized recipe.

(NOTE: The instructor should fill in current prices on this exercise.)

PART I

Review the following recipe.

RECIPE CARD

CARRIFRUIT SALAD

YIELD: 50 servings

INGREDIENTS	WEIGHT	MEASURE	COST	DIRECTIONS
Carrots, shredded	4 lb 8 oz			Mix all ingredients lightly.
Marshmallows, cut or miniature	9 oz			Add mayonnaise blended with cream. Mix carefully.
Pineapple tidbits, drained	2 lb 12 oz			
Coconut, flaked	8 oz			
Mayonnaise		2¼ c		Serve with No. 12 dipper
Cream		¾ c		
COST PER SERVING:	PAN SIZE:	6-qt bowl		SERVING SIZE: ⅓ c

CLASS ASSIGNMENT SHEET #1

PART II

Precost the recipe for Carrifruit Salad.

FORMAT TO PRECOST RECIPE

CARRIFRUIT SALAD

Recipe Ingredients	Amount	Purchase Unit	Cost Purchase Unit	Breakdown Figure*	Recipe Amount	Cost of Recipe Amount
Carrots						
Marshmallows						
Pineapple tidbits						
Coconut, flaked						
Mayonnaise						
Cream						

Grand Total ____________

Cost per Serving ____________

*Smallest unit specified for an ingredient — pound, ounce, cup, tablespoon, and so on.

PART III

Record the precost information on the recipe in PART I.

COST CONTROL IN FOOD PRODUCTION
UNIT X

CLASS ASSIGNMENT SHEET #2 — PRECOST MENU ITEMS

NAME ______________________________ SCORE ____________

Precosting menu items is important for food cost control. The following exercise is intended to teach steps in precosting a menu item. Complete the following exercise.

(NOTE: The instructor should fill in current prices on this exercise.)

Precost the Following Menu Items	**Specifications**	**Price of Item**
Orange juice, ½-c serving	12/32 oz, reconstitutes 3:1	____________
Corn flakes, individual pkg	50 individual pkgs/case	____________
Poached egg, 1	AA/lg, 30 doz/case	____________
Toast, 1 slice	Whole wheat, 24 slices/1½# loaf	____________
Margarine, 1 pat	Reddies 96/lb	____________
Milk, whole, 1 c	Homogenized, 8-oz carton	____________

A. Precost the orange juice for a ½-cup serving. ____________

1. Number of servings in twelve 32-ounce cans ____________
2. Cost per serving ____________

B. Precost one package of corn flakes. ____________

C. Precost one egg. ____________

1. Number of servings in 30 dozen/case of eggs ____________
2. Cost for one egg or one serving ____________

D. Precost one slice of bread. ____________

1. Number of servings in a loaf of bread ____________
2. Cost per serving or per slice ____________

E. Precost one pat of margarine. ____________

1. Number of servings in 1 pound of margarine reddies ____________
2. Cost per serving or per pat ____________

F. Precost 1 cup or 8-ounce carton of milk. ____________

CLASS ASSIGNMENT SHEET #2

G. List the price for one serving of each of the menu items as determined in steps A to F, and total the cost per meal for one individual.

Menu Item	Serving Size	Cost for One Serving
ORANGE JUICE	½ cup	
CORN FLAKES	Individual pkg	
POACHED EGG	1	
TOAST	1 slice	
MARGARINE	1 pat	
MILK	1 cup	
	Total cost of meal/person	

COST CONTROL IN FOOD PRODUCTION
UNIT X

ANSWERS TO CLASS ASSIGNMENT SHEETS

Class Assignment Sheet #1 — Evaluated to the satisfaction of the class instructor

Class Assignment Sheet #2 — Evaluated to the satisfaction of the class instructor

COST CONTROL IN FOOD PRODUCTION
UNIT X

CLINICAL ASSIGNMENT SHEET #1 — PRECOST ONE DAY OF THE MENU CYCLE

NAME ______________________ SCORE ____________

PART I

In the space below, list all menu items for one day of the menu cycle in use in your facility. Precost each item on the menu. Use current prices from recent invoices.

CLINICAL ASSIGNMENT SHEET #1

PART II

The purpose of precosting menus is to allow for adjustments before the menu goes into production. Answer the following questions based on the day's menu you precosted in Part I. Write your answers in the blanks provided.

A. What is the budgeted meal cost per patient per day in your facility?

____

B. How does the meal cost of the menu in Part I compare with the budgeted cost?

____

____

C. If the menu in Part I does not compare favorably with the budgeted cost, what changes would you suggest in the menu?

(NOTE: In actual use, the cost of each day's menu will not be identical, but the average meal cost per patient per day should be the same as the budgeted cost.)

____

____

____

____

____

FPW - 581-C

COST CONTROL IN FOOD PRODUCTION
UNIT X

CLINICAL ASSIGNMENT SHEET #2 — COMPARE COST PER SERVING OF DIFFERENT BRANDS OF A MENU ITEM

NAME ______________________________ SCORE ____________

When purchasing food, it is necessary to compare brands of foods to be used. Compare brand no. 1 and brand no. 2 of canned sliced peaches to determine which is the best buy. Complete the following exercise as indicated.

PART I

Choose two brands of sliced peaches from the storeroom shelves. Compare the two brands for quality and cost per serving.

A. Drain both cans an equal amount of time (2 minutes).

B. Weigh contents of each can.

    1. Weight of brand no. 1 ____________

    2. Weight of brand no. 2 ____________

C. Determine cost per serving of brand no. 1.

    1. Cost per case of brand no. 1 ____________

    2. Cost per can ____________

    3. Number of 4-ounce servings in can ____________

    4. Cost per serving ____________

D. Determine cost per serving of brand no. 2.

    1. Cost per case of brand no. 2 ____________

    2. Cost per can ____________

    3. Number of 4-ounce servings in can ____________

    4. Cost per serving ____________

E. Which brand appears to have the quality most appropriate for your use? ________

F. Which brand did you decide to purchase and why? ____________________

____

CLINICAL ASSIGNMENT SHEET #2

PART II

Record on the cost comparison record the information determined in Part I for the two brands of sliced peaches.

COST COMPARISON RECORD

<table>
<tr><td colspan="4">NAME OF ITEM:</td><td colspan="3">PORTION: 1/2-c serving</td></tr>
<tr><td>DATE</td><td>VENDOR & BRAND</td><td>AMOUNT PURCHASED</td><td>CAN SIZE</td><td>COST</td><td>NO. SERVINGS PER CAN</td><td>COST PER SERVING</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</table>

COST CONTROL IN FOOD PRODUCTION
UNIT X

CLINICAL ASSIGNMENT SHEET #3 — CHECK A GROCERY ORDER AGAINST THE INVOICE

NAME ______________________________ SCORE ______________

In controlling food costs, it is necessary to check to be sure that all merchandise has been received as ordered. Using the invoice from the vendor, check in the merchandise as it is received.

A. List any items different from those ordered on the purchase order.

____

____

B. List any items missing from the order.

____

____

C. List any damaged items or torn boxes that make the merchandise unsafe to use.

____

____

COST CONTROL IN FOOD PRODUCTION
UNIT X

CLINICAL ASSIGNMENT SHEET #4 — RECORD INFORMATION ON A FOOD PRODUCTION SHEET

NAME ________________________ SCORE ____________

Keeping a record of food production information can be very helpful in finding losses of money in a dietary department. Record information for one day's menu on a food production sheet. Use the form shown on the following page, or the form in use in your facility. After the information has been recorded for one day, answer the following questions.

A. List areas where money could have been lost in food production that day.

____

____

____

B. What advice would you give for correcting any problems in this area(s)?

____

____

____

____

586-C

CLINICAL ASSIGNMENT SHEET #4

PRODUCTION SHEET

Menu Item	Quantity to Prepare	Actual Yield	Person Responsible	Recipe Number	Portion Size	Time Schedule	Leftover Amount	Short	Substitution

COST CONTROL IN FOOD PRODUCTION
UNIT X

CLINICAL ASSIGNMENT SHEET #5 — RECORD MEALS SERVED FOR A FIVE-DAY PERIOD

NAME ______________________ SCORE ______________

In order to know how to forecast the number of meals to prepare, it is necessary to keep a daily meal census. At the end of the month, a meal census of all meals served during the month is necessary to figure raw food cost. On the following page is a meal census sheet. Record the number of all meals served in your facility for five days. Be sure to include number of meals served to personnel and guests.

588-C

CLINICAL ASSIGNMENT SHEET #5

RECORD OF NUMBER OF MEALS SERVED Month Year

DAY	PATIENT				PERSONNEL				GUESTS				SPECIAL FUNCTION			DAILY TOTAL
	B	L	D	Total	B	L	D	Total	B	L	D	Total	L	D	Total	
1.																
2.																
3.																
4.																
5.																
6.																
7.																
8.																
9.																
10.																
11.																
12.																
13.																
14.																
15.																
16.																
17.																
18.																
19.																
20.																
21.																
22.																
23.																
24.																
25.																
26.																
27.																
28.																
29.																
30.																
31.																
Monthly Total																

Used with permission of the California Department of Health.

COST CONTROL IN FOOD PRODUCTION
UNIT X

ANSWERS TO CLINICAL ASSIGNMENT SHEETS

Clinical Assignment Sheet #1 — Evaluated to the satisfaction of the clinical instructor

Clinical Assignment Sheet #2 — Evaluated to the satisfaction of the clinical instructor

Clinical Assignment Sheet #3 — Evaluated to the satisfaction of the clinical instructor

Clinical Assignment Sheet #4 — Evaluated to the satisfaction of the clinical instructor

Clinical Assignment Sheet #5 — Evaluated to the satisfaction of the clinical instructor

COST CONTROL IN FOOD PRODUCTION
UNIT X

TEST

NAME ____________________ SCORE __________

1. Match terms associated with cost control to their correct definitions. Write the correct numbers in the blanks.

_____a. Organized count of meals for patients, personnel, and any others served

_____b. Actual count of supplies

_____c. Control over all items of income and expense concerned with the functioning of the food service system

_____d. Vendor's itemized list of merchandise delivered to the buyer; states quantity, price, and description

_____e. System that lists each stock item separately, listing each transaction as it occurs

_____f. Written record of orders placed with a vendor

_____g. Cost control measure involving the calculation of the cost of menus in advance of their use so that adjustments can be made in the menu before it is put into production

1. Invoice
2. Cost control
3. Purchase order
4. Meal census
5. Physical inventory
6. Perpetual inventory
7. Precosting

2. List factors involved in food cost control.

a. ____________________

b. ____________________

c. ____________________

d. ____________________

e. ____________________

f. ____________________

TEST

3. Arrange in order steps in precosting menus. Write a "1" before the first step, a "2" before the second step, and so on.

______a. Find average food cost for four weeks

______b. Plan menu cycle

______c. Assign portion costs to each item on menu cycle

______d. Standardize all recipes and precost

______e. Calculate price per portion for each menu item

______f. Total raw food cost per day

______g. Calculate average food cost for week

4. Arrange in order the steps for intelligent food purchasing. Write a "1" before the first step, a "2" before the second step, and so on.

______a. Prepare a purchase order

______b. Find out what you have on hand

______c. Obtain prices on items

______d. Find out what you need

______e. Determine which products best meet your needs

______f. Know the number of persons you are going to serve

5. Select from the following list steps to maintain good cost control in receiving food. Write an "X" in the blank before each correct answer.

______a. Check all items after the delivery person leaves

______b. Count all items as received

______c. Check against invoice all items received

______d. Check quality of all items

______e. Weigh all items as received

______f. Check substitutions

______g. Check each item on purchase order to see that it matches invoice

______h. Trust company substitutions

______i. Check price on invoice against quotation price

TEST

6. Select from the following list steps to maintain good cost control in storing food. Write an "X" in the blank before each correct answer.

______a. Mark date and cost on case or on each can or box as stored

______b. Store refrigerated and freezer items as soon as you finish whatever you are doing

______c. Stock old merchandise to the front of the shelf and new merchandise to the back

______d. Store refrigerated items immediately

______e. Keep all storage areas at correct temperature to prevent losses

______f. Make all storage areas available to personnel

______g. Limit access to storage areas

______h. Keep all storage areas locked when not in use

______i. Store freezer items immediately

7. Select from the following list food production practices to maintain good cost control. Write an "X" in the blank before each correct answer.

______a. Prepare 10 percent more than food production sheet indicates

______b. Use a food production sheet

______c. Cook at correct temperatures

______d. Be sure to use standard portions of each item served

______e. Save time by not scraping cans, jars, and mixing bowls clean

______f. Use standardized recipes

______g. Use leftovers wisely

______h. Throw away most leftovers

8. List records that should be maintained accurately by the supervisor.

a. ____

b. ____

c. ____

TEST

d. ______________________________

e. ______________________________

f. ______________________________

(NOTE: Test questions 9-15 list the assignment sheets. They are an important part of this test. If they have not been completed, check with your instructor.)

9. Precost a standardized recipe.

10. Precost menu items.

11. Precost one day of the menu cycle.

12. Compare cost per serving of different brands of a menu item.

13. Check a grocery order against the invoice.

14. Record information on a food production sheet.

15. Record meals served for a five-day period.

COST CONTROL IN FOOD PRODUCTION
UNIT X

ANSWERS TO TEST

(NOTE: It may be helpful to use your blank test to make a test key. The points designated in parentheses are intended to be guidelines and should be adapted to meet the needs of each teaching/learning situation. The point total for the entire test is 395. The point total for questions 1-8 is 130; the point total for questions 9-15 is 265.)

1. (14 points)

    a. 4
    b. 5
    c. 2
    d. 1
    e. 6
    f. 3
    g. 7

2. (6 points)

    a. Menu planning
    b. Purchasing
    c. Receiving
    d. Storage
    e. Food production
    f. Record keeping

3. (28 points)

    a. 7
    b. 1
    c. 4
    d. 2
    e. 3
    f. 5
    g. 6

4. (24 points)

    a. 6
    b. 1
    c. 4
    d. 2
    e. 5
    f. 3

ANSWERS TO TEST

5. (18 points)

   b, c, d, e, f, g, i

6. (18 points)

   a, c, d, e, g, h, i

7. (16 points)

   b, c, d, f, g

8. (6 points)

   a. Cycle menu

   b. Purchasing and receiving order

   c. Meal census records

   d. Inventory

   e. Daily summary of vendor invoices for food, supplies, and equipment

   f. Food cost records

9. Evaluated to the satisfaction of the class instructor (40 points)

10. Evaluated to the satisfaction of the class instructor (30 points)

11. Evaluated to the satisfaction of the clinical instructor (35 points)

12. Evaluated to the satisfaction of the clinical instructor (35 points)

13. Evaluated to the satisfaction of the clinical instructor (25 points)

14. Evaluated to the satisfaction of the clinical instructor (50 points)

15. Evaluated to the satisfaction of the clinical instructor (50 points)

BASIC SUPERVISORY SKILLS
UNIT I

UNIT OBJECTIVE

After completing this unit, the student should be able to use basic supervisory skills in performing job assignments. This knowledge will be shown by completing assignment sheets and unit test with a minimum score of 85 percent.

SPECIFIC OBJECTIVES

After completing this unit, the student should be able to

1. Define *supervisor.*
2. List personal qualifications of a supervisor.
3. Identify types of supervisory responsibilities of a food production worker.
4. Select from a list guidelines for assigning tasks.
5. Arrange in order steps for giving instructions/directions.
6. Select from a list guidelines for successful follow-up.
7. Select from a list common types of supervisory errors.
8. Make a plan to assign tasks efficiently.
9. Give instructions correctly.
10. Select information to report to the supervisor.
11. Demonstrate the ability to perform supervisory duties.

BASIC SUPERVISORY SKILLS
UNIT I

SUGGESTED ACTIVITIES

I. Suggested activities

  A. Make transparency.

  B. Provide students with objective sheet.

  C. Provide students with information and assignment sheets.

  D. Discuss unit and specific objectives.

  E. Discuss information and assignment sheets.

  F. Develop appropriate learning activities for special needs students.

  G. Schedule days in which students may assume supervisory duties by acting in the capacity of supervisor. Assign each student a day so that students can plan supervisory duties for Clinical Assignment Sheet #1.

  H. Review "Basic Communication Skills" from *Food Service Worker*, Section E, Unit II.

  I. Give test.

  J. Reteach if necessary.

II. Instructional materials

  A. Objective sheet

  B. Suggested activities

  C. Information sheet

  D. Transparency master: TM #1 — Twelve Qualities of a Good Leader

  E. Class assignment sheets

    1. Class Assignment Sheet #1 — Make a Plan to Assign Tasks Efficiently

    2. Class Assignment Sheet #2 — Give Instructions Correctly

    3. Class Assignment Sheet #3 — Select Information to Report to the Supervisor

  F. Answers to class assignment sheets

  G. Clinical Assignment Sheet #1 — Demonstrate the Ability to Perform Supervisory Duties

SUGGESTED ACTIVITIES

H. Answers to clinical assignment sheet

I. Test

J. Answers to test

III. Unit references

A. Knoll, A. P. *Food Service Management: A Human Relations Approach.* New York: McGraw-Hill Book Company, 1976.

B. Lateiner, A. *Modern Techniques of Supervision,* rev. Stamford, Connecticut: Lateiner Publishing, 1978.

C. Strauss, G., and L.R. Sayles. *Personnel, The Human Problems of Management,* 4th ed. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1981.

BASIC SUPERVISORY SKILLS
UNIT I

INFORMATION SHEET

I. Supervisor — One who is responsible for getting a job done that is too big to be done by one person

(NOTE: When you accept a job with supervisory responsibilities, you must realize that you now depend on other people to help accomplish the job.)

II. Personal qualifications of a supervisor

   A. Leadership ability (Transparency #1)

   (NOTE: A supervisor must be willing to accept responsibility.)

   B. Good judgment

   (NOTE: A supervisor must have the ability to arrive at logical solutions.)

   C. Enthusiasm

   (NOTE: Good attitudes set the stage for employees.)

   D. Self-control

   (NOTE: It is impossible to handle others without self-control.)

   E. Sense of humor

   F. Acceptable appearance

   (NOTE: A supervisor must be an example for other employees.)

   G. Genuine liking for people

   H. Courtesy and respectfulness

III. Types of supervisory responsibilities of food production worker (Clinical Assignment Sheet #1)

   A. Daily

      1. Assigning tasks in area of responsibility

      2. Giving instructions

      3. Following up to see that work is accomplished

      4. Reporting important information to supervisor (Class Assignment Sheet #3)

INFORMATION SHEET

B. Occasional

(NOTE: These duties and responsibilities are normally assumed by the supervisor but may be assigned to the food production worker in the absence of the supervisor.)

1. Orienting and training personnel
2. Supervising care and maintenance of equipment
3. Preparing work schedules and time schedules
4. Developing and enforcing sanitation procedures and schedules
5. Establishing and maintaining safety standards
6. Ordering food and supplies
7. Receiving deliveries and checking merchandise
8. Supervising activities of all workers in the department

IV. Guidelines for assigning tasks (Class Assignment Sheet #1)

A. Determine work to be done

B. Determine employees available

C. Evaluate skill requirements of work

D. Match skills to employees

E. Consider time factor

V. Steps for giving instructions/directions (Class Assignment Sheet #2)

A. Consider whether instructions/directions are really necessary

B. Give clear and complete instructions/directions

C. Use a kind but firm tone of voice

D. Determine whether instructions/directions were understood

EXAMPLES: Observe body language; ask that instructions/directions be repeated; watch to see if required action takes place.

INFORMATION SHEET

VI. Guidelines for successful follow-up

A. Give credit where credit is due

B. Criticize work rather than worker

C. Distinguish between essential and nonessential rules

EXAMPLES: Essential — The storeroom must be locked when you leave the kitchen.

Nonessential — The storeroom shelves should be straightened before leaving each day.

VII. Common types of supervisory errors

A. Pushing workers as long and hard as possible

(NOTE: This type of supervisor regards workers as machines.)

B. Being inconsistent, indecisive, and contradictory

(NOTE: These attitudes are usually exhibited by supervisors who are uncertain of themselves and their knowledge of the job.)

C. Telling one thing to superiors and another to workers

(NOTE: Some supervisors change their stories from time to time for convenience.)

D. Personally doing the job rather than directing employees

(NOTE: Those unsure of how to supervise are most often found doing this.)

E. Allowing self-importance to override everything else

(NOTE: This individual usually has much ambition and a desire for recognition.)

Twelve Qualities of a Good Leader

1. Sets a good example
2. Treats everyone as an individual; lets them know they are important
3. Gets results through others
4. Gives credit where credit is due
5. Welcomes suggestions for improvement
6. Suggests or requests rather than commands
7. Lets employees know where they stand; suggests ways to improve
8. Reinforces good performance; corrects poor performance
9. Asks questions before reprimanding; criticizes in private
10. Keeps promises
11. Leads rather than bosses
12. Lets employees know in advance about changes that affect them

BASIC SUPERVISORY SKILLS
UNIT I

CLASS ASSIGNMENT SHEET #1 — MAKE A PLAN TO ASSIGN TASKS EFFICIENTLY

NAME ______________________________ SCORE ______________

One responsibility a food production worker may have is to assign tasks to food service workers who assist in this area. In order for work to be accomplished correctly and on time, these assignments must be made efficiently. Complete the following case study, using the information in Section IV of your Information Sheet.

PART I — CASE STUDY

You are a food production worker in a one hundred-bed nursing home. You have two food service workers you supervise on the morning shift before the food service supervisor comes on duty. When all report for work at 6:00 A.M., the following jobs need to be done by 9:00 A.M., when the food service supervisor comes on duty.

Reconstitute and pour juice
Clean refrigerator in the cook's area
Clean grill
Scramble eggs on grill
Make coffee
Cook bacon in oven
Cook cereal
Set tables in patient dining room
Serve breakfast trays beginning at 7:00 A.M.
Serve dining room beginning at 7:30 A.M.
Make toast
Set up steam table for serving
Remove pans from steam table after serving
Clear tables in dining room after meal
Assemble dishes, trays, flatware, and other items needed for tray assembly
Label and store leftovers
Review breakfast menu, and assign tasks
Review lunch menu, and begin advance preparation
Prepare breakfast items for special diets
Check tray cards against diet order sheet, and make any necessary changes

CLASS ASSIGNMENT SHEET #1

PART II

Use the following chart to make a plan for assigning tasks outlined in Part I.

Time	Food Production Worker	Food Service Worker No. 1	Food Service Worker No. 2
6:00 A.M.			

BASIC SUPERVISORY SKILLS
UNIT I

CLASS ASSIGNMENT SHEET #2 — GIVE INSTRUCTIONS CORRECTLY

NAME ________________________________ SCORE ____________

One of the skills needed to supervise others is the ability to give instructions correctly. Failure to do so can result in wasted time and energy, which contribute to frustration and poor morale among the employees supervised.

In the following examples of instructions, write an "X" in the blank before the correct way to give the instructions. In the comments section, explain what errors were made in the incorrect statement.

A. ______1. "Betty, please take ten water glasses to Mary in the east dining room. She needs them right away." (Supervisor then waits a minute to see whether Betty starts to the dining room with the right glasses.)

______2. "Someone take some glasses to the dining room."

Comments:____

____

____

____

____

B. ______1. "Some dummy spilled water on the floor. It needs to be mopped up."

______2. "Bill, please mop up the water on the floor in front of the pot-and-pan sink right away before someone slips and falls in it." (Supervisor then checks back in a few minutes to be sure Bill mopped up the water.)

Comments:____

____

____

____

____

C. ______1. "I don't know why you can't follow directions. That refrigerator was supposed to be cleaned." (Supervisor walks away and does not check to see whether the refrigerator is cleaned before leaving for the day.)

CLASS ASSIGNMENT SHEET #2

______2. "Jan, please check the cleaning schedule. You were assigned to clean the refrigerator in the salad department yesterday. If you are unable to complete an assignment, you should discuss it with your supervisor."

Comments:____

D. ______1. "Mr. Smith in room 326B received a diabetic diet. He is supposed to get a regular diet. Martha, would you please set up a regular tray and take it to him right away?" (Supervisor visits Mr. Smith a short time later to be sure he got the right tray.)

______2. "Somebody take a regular tray to old man Smith on the east wing."

Comments:____

E. ______1. "Terry, I know you may have been told to scramble eggs in a skillet where you used to work; however, here we prefer to fix them in the steamer because we can prepare larger quantities at a time. Tomorrow I'll work with you and show you how."

______2. "You're scrambling the eggs the wrong way! Don't you know how to fix them in the steamer?"

Comments:____

BASIC SUPERVISORY SKILLS
UNIT I

CLASS ASSIGNMENT SHEET #3 — SELECT INFORMATION TO REPORT TO THE SUPERVISOR

NAME ______________________________________ SCORE ______________

It is very important for the food production worker to determine when information is important enough to be reported to the supervisor. Failure to keep the supervisor informed can result in inconvenience or serious errors.

PART I

In the following list, write an "X" in the blank before each item of information you think is important to report. Your instructor may ask you to discuss your answers as a class.

______A. Mrs. Green in room 18A spilled her supper tray, and you had to send her another one

______B. The wire whip attachment for the mixer broke while you were preparing whipped topping

______C. The morning dishwasher operator called to say that he was ill and would not be in tomorrow

______D. You had to use the fire extinguisher to put out a small grease fire

______E. The nurse asked for soup for Mr. Jones at supper because he was not feeling well

______F. The cord on the mixer is frayed

PART II

Describe an incident you have observed in which failure to report important information to the supervisor created a problem situation. Share with the class as directed by your instructor.

____

____

____

____

____

BASIC SUPERVISORY SKILLS
UNIT I

ANSWERS TO CLASS ASSIGNMENT SHEETS

Class Assignment Sheet #1 — Evaluated to the satisfaction of the class instructor

Class Assignment Sheet #2

A. 1. Comments: Specific employee was not assigned the task.

Type of glasses needed was not specified.

Instructions did not identify *who* needed the glasses or *when* they were needed.

No follow-up was indicated.

B. 2. Comments: Instructions were not given in a kind way.

Specific employee was not assigned the task.

Location of spilled water was not given.

Urgency to do the job right away to prevent an injury was not expressed.

C. 2. Comments: Instructions were not given in a firm but kind way.

Employees were not told what to do when they could not complete an assignment.

There was no follow-up.

D. 1. Comments: Patient and problem were not specifically identified.

No one employee was assigned the task.

Instructions were not given in a kind way.

There was no follow-up.

E. 1. Comments: Instructions were not given in a kind way.

Reasons for different procedures were not discussed.

Follow-up in the form of training was not offered.

ANSWERS TO CLASS ASSIGNMENT SHEETS

Class Assignment Sheet #3

PART I — B, C, D, F

PART II — Evaluated to the satisfaction of the class instructor

BASIC SUPERVISORY SKILLS
UNIT I

CLINICAL ASSIGNMENT SHEET #1 — DEMONSTRATE THE ABILITY TO PERFORM SUPERVISORY DUTIES

NAME ____ SCORE ________________

PART I

Demonstrate the ability to temporarily assume supervisory duties by acting in the capacity of a supervisor as assigned by your clinical instructor.

PART II

After completing Part I, complete the following self-evaluation, and discuss it with your clinical instructor.

A. Check the types of supervisory responsibilities you experienced in this assignment.

_____ Assigning tasks in area of responsibility

_____ Giving instructions

_____ Following up to see that work is accomplished

_____ Reporting important information to supervisor

_____ Orienting and training new personnel

_____ Supervising care and maintenance of equipment

_____ Preparing work schedules and time schedules

_____ Developing and enforcing sanitation procedures and schedules

_____ Establishing and maintaining safety standards

_____ Ordering food and supplies

_____ Receiving deliveries and checking merchandise

_____ Supervising activities of all workers in the department

_____ Others (Please list.)

____

____

____

____

CLINICAL ASSIGNMENT SHEET #1

B. Which of the responsibilities that you experienced were completed successfully?

____

____

____

C. Which of the activities do you feel you need more training or experience to handle successfully?

____

____

____

D. Plan with your clinical instructor ways to obtain the training or experience identified in item C.

____

____

____

BASIC SUPERVISORY SKILLS
UNIT I

ANSWERS TO CLINICAL ASSIGNMENT SHEET

Clinical Assignment Sheet #1 — Evaluated to the satisfaction of the clinical instructor

BASIC SUPERVISORY SKILLS
UNIT I

TEST

NAME ______________________________ SCORE ______________

1. Define *supervisor*.

____

____

2. List five personal qualifications of a supervisor.

   a. ______________________________________

   b. ______________________________________

   c. ______________________________________

   d. ______________________________________

   e. ______________________________________

3. Identify types of supervisory responsibilities of a food production worker. Write "Daily" above daily responsibilities and "Occasional" above occasional responsibilities.

a. ______________________	b. ______________________
Ordering food and supplies	Giving instructions
Orienting and training personnel	Assigning tasks in area of responsibility
Preparing work schedules and time schedules	Reporting important information to supervisor
Receiving deliveries and checking merchandise	Following up to see that work is accomplished
Supervising activities of all workers in the department	
Establishing and maintaining safety standards	
Supervising care and maintenance of equipment	

TEST

4. Select from the following list guidelines for assigning tasks. Write an "X" in the blank before each correct answer.

______a. Assign easy jobs to friends

______b. Determine work to be done

______c. Determine employees available

______d. Assign difficult jobs to an employee who does not complain

______e. Evaluate skill requirements of work

______f. Match skills to employees

______g. Consider time factor

5. Arrange in order steps for giving instructions/directions. Write a "1" before the first step, a "2" before the second step, and so on.

______a. Use a kind but firm tone of voice

______b. Consider whether instructions/directions are really necessary

______c. Determine whether instructions/directions were understood

______d. Give clear and complete instructions/directions

6. Select from the following list guidelines for successful follow-up. Write an "X" in the blank before each correct answer.

______a. Give credit where credit is due

______b. Ignore good work done

______c. Criticize work rather than worker

______d. Distinguish between essential and nonessential rules

______e. Praise all work

TEST

7. Select from the following list common types of supervisory errors. Write an "X" in the blank before each supervisory error.

______a. Pushing workers as long and hard as possible

______b. Using a kind but firm tone of voice

______c. Being inconsistent, indecisive, and contradictory

______d. Telling one thing to superiors and another to workers

______e. Giving recognition when due

______f. Personally doing the job rather than directing employees

______g. Allowing self-importance to override everything else

(NOTE: Test questions 8-11 list the assignment sheets. They are an important part of this test. If they have not been completed, check with your instructor.)

8. Make a plan to assign tasks efficiently.

9. Give instructions correctly.

10. Select information to report to the supervisor.

11. Demonstrate the ability to perform supervisory duties.

BASIC SUPERVISORY SKILLS
UNIT I

ANSWERS TO TEST

(NOTE: It may be helpful to use your blank test to make a test key. The points designated in parentheses are intended to be guidelines and should be adapted to meet the needs of each teaching/learning situation. The point total for the entire test is 299. The point total for questions 1-7 is 59; the point total for questions 8-11 is 240.)

1. (2 points)

   One who is responsible for getting a job done that is too big to be done by one person

2. (5 points)

   Answer should include any five of the following

   a. Leadership ability

   b. Good judgment

   c. Enthusiasm

   d. Self-control

   e. Sense of humor

   f. Acceptable appearance

   g. Genuine liking for people

   h. Courtesy and respectfulness

3. (4 points)

   a. Occasional

   b. Daily

4. (12 points)

   b, c, e, f, g

ANSWERS TO TEST

5. (12 points)

a.	3	c.	4
b.	1	d.	2

6. (10 points)

   a, c, d

7. (14 points)

   a, c, d, f, g

8. Evaluated to the satisfaction of the class instructor (60 points)

9. Evaluated to the satisfaction of the class instructor (50 points)

10. Evaluated to the satisfaction of the class instructor (30 points)

11. Evaluated to the satisfaction of the clinical instructor (100 points)